

LIBRARY RESOURCES & TECHNICAL SERVICES

Vol. 12, No. 4

Fall, 1968

CONTENTS

	Page
The Age of Cronin: Aspects of the Accomplishment of John W. Cronin, Library of Congress, 1925-1968. <i>Verner W. Clapp, William J. Welsh, L. Quincy Mumford, Jerrold Orne, Frederick H. Wagman, Luther H. Evans, Ralph E. Ellsworth, William S. Dix, Frank B. Rogers, Gordon Williams, Maurice F. Tauber, Daniel Melcher, A. J. Wells</i>	385
Depository Libraries: The Out-Houses of the Government's Information Transfer System. <i>Clifton Brock</i>	407
Efficacy of Citation Indexing in Reference Retrieval. <i>Theodore S. Huang</i>	415
The Jordan Plastic Book Box: A New Concept in Library Storage and Circulation. <i>Robert Jordan and Catherine Blumenfeld</i>	435
RTSD in an Age of Change. <i>Margaret C. Brown</i>	442
Paul S. Dunkin. <i>Ruth French Carnovsky</i>	447
RTSD Annual Reports, 1967/1968. <i>David C. Weber, Felix Reichmann, Dorothy Ladd, William S. Budington, William H. Huff</i>	450
Reviews.	469
Index.	475

EDITORIAL BOARD

Editor, and Chairman of the Editorial Board PAUL S. DUNKIN

Assistant Editors:

RICHARD M. DOUGHERTY for Acquisitions Section

C. DONALD COOK
for Cataloging and Classification Section

ELIZABETH F. NORTON for Serials Section

ALLEN B. VEANER
for Reproduction of Library Materials Section

Editorial Advisers:

Maurice F. Tauber (for Technical Services)

Managing Editor: DORALYN J. HICKEY

Circulation Manager: MRS. ELIZABETH RODELL

Library Resources & Technical Services, the quarterly official publication of the Resources and Technical Services Division of the American Library Association is published at 2901 Byrdhill Road, Richmond, Va. 23205. Send POD Form 3579 to the William Byrd Press, Inc., P. O. Box 2-W, Richmond, Va. 23205. *Editorial Office:* Graduate School of Library Service, Rutgers—The State University, New Brunswick, N. J. 08903. *Circulation and Business Office:* 50 E. Huron St., Chicago, Ill. 60611. *Subscription Price:* to members of the ALA Resources and Technical Services Division, \$2.00 per year, included in the membership dues; to nonmembers, \$5.00 per year, single copies \$1.25, orders of five or more copies (same issue or assorted), \$1.00 each.

"Second-class postage paid at Richmond, Va., and at additional mailing offices."

LRTS is indexed in *Library Literature* and in *Library Science Abstracts*. Its reviews are included in the *Book Review Digest* and *Book Review Index*.

Contributors: Manuscripts of articles and copies of books for review should be addressed to the *Editor*: Paul S. Dunkin, Graduate School of Library Service, Rutgers—The State University, New Brunswick, N.J. 08903. Each manuscript should be in two copies, typed in double space, with illustrative matter in finished form for the printer. Preceding the article should be its title, the name and affiliation of the author, and a 75- to 100-word abstract. The article itself should be concise, simply written, and as free as possible of jargon. Citations should be brief, easy to understand, and consistent in form within the article.

Editors: Material published in *LRTS* is not copyrighted. When reprinting, the courtesy of citation to the original publication is requested. Publication in *LRTS* does not imply official endorsement by the Resources and Technical Services Division nor by ALA, and the assumption of editorial responsibility is not to be construed necessarily as endorsement of the opinions expressed by individual contributors.

The Age of Cronin: Aspects of the Accomplishment of John W. Cronin, Library of Congress, 1925-1968

Edited by VERNER W. CLAPP, *Consultant*
Council on Library Resources, Inc.
Washington, D. C.

and

WILLIAM J. WELSH, *Director*
Processing Department
Library of Congress
Washington, D. C.

ARTICLES

1. John W. Cronin and the Role of the Library of Congress in the Library World. *L. Quincy Mumford*
2. Cronin and National Bibliographic Services. *Jerrold Orne*
3. John Cronin and the Library of Congress Catalog Card Service. *Frederick H. Wagman*
4. Cronin and the Revival of the Book-Format Catalog. *Luther H. Evans*
5. John Cronin and Centralized Cataloging. *Ralph E. Ellsworth*
6. John Cronin and Shared Cataloging. *William S. Dix*
7. Cronin and the Third Edition of the Union List of Serials. *Frank B. Rogers*
8. John Cronin and the National Union Catalog. *Gordon Williams*
9. Cronin and the Building and Organization of Collections. *Maurice F. Tauber*
10. A Public Servant as Seen by a Private Publisher. *Daniel Melcher*
11. Cronin Spans the Continents. *A. J. Wells*



JOHN W. CRONIN

The Age of Cronin

WILLIAM J. WELSH
and
VERNER W. CLAPP

AFTER MORE than 40 years as a member of its staff, John W. Cronin retired from the Library of Congress on April 30, 1968. He had been Director of the Processing Department for sixteen years.

A native of Lewiston, Maine, John received his A.B. from Bowdoin in 1925 and came to work in the Card Division of LC on September 25 of that year. He left the Library in 1926 to study law, returned in 1928, and was awarded the L.L.B. from the Georgetown University Law School in 1929. In 1932 he became Assistant Chief and in 1938 Chief of the Card Division, in 1944 Assistant Director of the Processing Department, and Director in 1951.

The "Age of Cronin" consists of three principal elements: the full achievement by the LC printed catalog card of a position as the common currency of bibliographic information for American librarianship; the return of the book-format catalog based principally upon the LC catalog card; and John W. Cronin himself. Without any one of these ingredients the "Age of Cronin" would not be recognizable as such.

One reason that John made such a mark is that he had such a magnificent head start. When he came to work for LC in 1925, it was for another Bowdoin graduate, Charles Harris Hastings, who had founded the Card Division (then Section) in 1901, who had endowed it with his vision of a national bibliographic service based upon LC cataloging, had trained an expert corps of collaborators and imbued them with an unquenchable ardor for service, and had saved the Division repeatedly in times of crisis by pledging his personal resources.

But, try as he might, Hastings had several strikes against him. One was that the LC card service could never overcome the delay which was due, among other things, to LC's dependence upon the laggard receipt of copyright deposits as its principal source of American trade books. Another was that, in spite of the enormous number of LC cards, there was practically no such thing as an LC catalog. Because of the expense of creating and maintaining them, few libraries could enjoy a complete depository set of the cards. The "Age of Cronin" was to change all that.

It was immediately clear to John that the limiting factor in the usefulness of the card service was in the completeness and promptitude of LC's acquisitions processing machinery; and from the moment he got his hands on the controls he never ceased in efforts to improve these arrangements. Many are the milestones, like the "All the Books Pro-

gram" and the pre-assignment of LC card numbers to publishers, which line the long road that has now led to the National Program for Acquisitions and Cataloging in which every important book published anywhere will eventually, perhaps, be promptly represented by an LC card.

As for the book-form catalog, Cronin was its obstetrician. It was he who supervised the printing of the "Edwards Brothers Catalog"—the 167-volume *Catalog of Books Represented by Library of Congress Printed Cards*, sponsored in 1942-1946 by the Association of Research Libraries; he lived with the press and proofread each one of the *Catalog's* 1,625,000 cards. From then on, he drove the photo-offset technique unmercifully; under his lashing it has made possible a continually increasing flow of bibliographic benisons—catalogs, accession lists, union lists, union catalogs—which only a few years previously would have been unthinkable. In 1956 it halted the growth and universalized the usefulness of the National Union Catalog; and now, as one of Cronin's last official acts, it is preparing to eliminate the vast pre-1956 accumulation of the pre-1956 National Union Catalog in a bibliographic Niagara of some 671 volumes.

These are but highlights. To fill in the detail would require many pages. Meanwhile, between the accomplishments the man himself can be discerned—knowledgeable, indomitable, impatient, irascible, but thoughtful and generous, beloved by his staff and honored by his colleagues.

Few can have contributed so importantly to the significant developments of a complex professional discipline within their professional lifetimes. The "Age of Cronin" is truly named. But now let some of his colleagues speak.

I. John W. Cronin and the Role of the Library of Congress in the Library World

L. QUINCY MUMFORD
Librarian of Congress
Washington, D. C.

If the role of the Library of Congress in the library world is one of increasing magnitude and benefit, a very large share in this achievement can be attributed to John W. Cronin. Let me illustrate with a quotation. In 1941, while serving (on loan from the New York Public Library) as the first director of LC's Processing Department, I wrote in my annual report:

Today all large libraries are confronted with the high cost of cataloging and with an ever increasing flood of material. A large portion of the budget of these libraries is allocated to cataloging, and in many libraries throughout the country the work is being duplicated. Many of them use Library of Congress cards as far as possible, but the Library of Congress does not receive a

copy of every book obtained by other libraries; also, it is facing the same problem as other libraries—material coming in faster than it can be processed. It is imperative that the Library of Congress and other libraries seek methods of treating material more rapidly and of avoiding duplication, with less cost to the individual libraries.

I believe now, as I believed then, that the objective set forth is of crucial importance. It constitutes an essential element in the role which the Library of Congress plays in the library world. Though we still have a long way to go, I think it would be agreed that the Library has made a great deal of progress toward this objective. If this is true, the major credit must go to John W. Cronin, who served as Assistant Director of the Processing Department from 1944 to 1951 and as Director from 1951 to 1968.

We are all painfully aware that there has been no diminution in the "ever increasing flood of material." On the contrary, it has continued to grow at a rate well beyond the forebodings of 1941. But something is being done, thanks to John Cronin, to bring down the "high cost of cataloging" through the reduction of duplicated effort. When the National Program for Acquisitions and Cataloging, which he planned for the Library and set on its course, comes to full maturity, other libraries should be able to obtain from the Library of Congress cataloging information in a volume, at a speed, and of a quality sufficient to meet virtually all their needs, and at minimum cost.

More libraries than ever before, now use Library of Congress cards, their sale having increased from 17 million in 1941 to 79 million in 1968. Much of this growth is due, of course, to an increase in the number of libraries and in the size of their collections; but a major contributing factor has certainly been the increased availability of the cards themselves and the wider dissemination of the information contained. The printing of the card numbers on the verso of the title pages of most American books and in book selection media, the reproduction of the cataloging information in these media, and the publication of the cards in cumulative book catalogs, both current and retrospective, were all developed to their present extent by John Cronin.

It is ceasing to be true that "the Library of Congress does not receive a copy of every book obtained by other libraries." The Library's acquisition program began a vast expansion in the years immediately following the second World War, and it received an added impetus with the initiation of the Public Law 480 Program. Under the National Program for Acquisitions and Cataloging, the Library of Congress seeks to obtain for cataloging purposes a copy of every current book, both foreign and domestic, which is reported to it by another American research library and is not already represented in its collections.

"Treating materials more rapidly" is a goal toward which LC has made considerable progress. Speedier acquisition of American titles through the gift or loan of advance copies, the transmission by air of blanket-order foreign titles, and the utilization of cataloging data prepared by the current national bibliographies of other countries are steps

in the right direction. The automation of the Library's central bibliographic system, an effort now in its early stages, will, hopefully, provide new solutions to hitherto intractable problems.

If we continue to move forward toward our goal, it will in large measure be because we shall be building on the broad and solid foundations laid down by John W. Cronin, who played his own leading and particular role so notably and unforgettably.

2. Cronin and National Bibliographic Services

JERROLD ORNE, *Librarian*
University of North Carolina
at Chapel Hill

American national bibliography of the 20th century is so extensive and so thoroughly documented that it clearly cannot be attributed to any one man. Yet there is one, John W. Cronin, who played so large a part in creating it that his record must surpass all others. It is fitting that this work should be recorded here, for his name and fame are all too slightly represented in the record of library literature.

John Cronin grew up in the company of giants and assigns all credit for his professional formation to them. He was apprenticed to Charles Harris Hastings, studied the work of J. C. M. Hanson and Charles Martel. Under them he acquired an enduring determination to create at the Library of Congress a national, if not international, center of bibliographic records beyond compare. In the Hastings tradition, John Cronin started his work with the lowliest job in the Card Division, and did not rest until he was its Head and had established a level of control never exceeded. The first step beyond that, was the initiation of the ALA Co-operative Cataloging Project which, in the four years from 1929 to 1933, brought together some thirty large libraries in a combined effort to establish a more complete national record. This halting but critical step was swiftly followed by the first printed *Catalog of Books Represented by L. C. Printed Cards* through 1942. It was in the production of this basic set that Cronin found his forte. Technical and fiscal problems were all grist for his mill, and his colossal energy alone assured their successful resolution. The pattern once set, John Cronin became both catalyst and developer of a whole series of published catalogs: the *Cumulative Catalog*, the *L. C. Subject Catalog*, and later the *L.C. Catalog—Books, Author and Subject*. In January 1956 appeared the first of the highly regarded issues of the *National Union Catalog* in book form. A separate project later added all of the record between 1952 and 1955 to provide complete coverage from January 1, 1952. The final chapter of the *NUC* story will be ten years in the making. The entire *National Union Catalog*, for pre-1956, imprints, is now being edited for printing in book form. This will complete the record for books in American libraries. All this could not have been done but for the organizational genius and drive of this man.

With American book bibliography under near-complete control, Cronin turned to other languages and other countries. He was heavily involved in the *Monthly List of Russian Accessions* and the *East European Accessions Index*. His attention to other forms led to the publication of the third edition of the *Union List of Serials* and its successor, *New Serial Titles*. His talents were also represented in various union lists of microfilms centered in the Library of Congress. In the production of this magnificent array of bibliographical tools, no minor detail was too small for his personal concern, no major problem too vast for his eager attack.

It was fitting that he should cap his enduring contributions with the brilliant detailing of the Shared Cataloging Program (NPAC), now rapidly becoming the greatest international bibliographical system ever known. Beginning in 1965, the Library of Congress began applying new funds and a system devised principally by John Cronin to provide a usable bibliographic record for every book of research utility published anywhere in the world. Over ninety of the largest libraries of our country share in this system, representing the greatest cooperative library operation of our time. The production of twenty countries is now being covered.

Cronin's cogent contributions as a long-time member and Chairman of the ALA Cataloging Policy and Research Committee and to the work of the Catalog Code Revision Committee will long be felt. His participation in ARL planning for numerous bibliographic ventures was always colorful and productive.

John Cronin's long list of services has been detailed before, most particularly in the citations for the various awards which he has received. There is no way, however, to convey in words the fire, the warmth, or the fierce determination of this man whose imprint on national bibliographical services in this country will endure for all time.

3. John Cronin and the Library of Congress Catalog Card Service

FREDERICK H. WAGMAN
*Director, University Library
The University of Michigan
Ann Arbor, Michigan*

The development of the Library of Congress Catalog Card Service not only reflects the growth of American librarianship but shares in the credit for the phenomenal expansion of libraries during the past quarter century. Moreover, if we are justified in assuming today that we have a solid basis in bibliographic standardization to support the development of an effective national library system, then we must regard the efficiency of the Card Division as having been highly instrumental in promoting and achieving acceptance of such standardization.

Among the astonishing number of contributions for which the library profession is indebted to John Cronin, the most important may well be his imaginative and persistent effort for more than forty years to make the Catalog Card Service more useful to the libraries of the nation. What had been justified in 1901 as a byproduct of the Library of Congress' cataloging in its own behalf became, under Cronin's administration, one of the strongest influences on LC to assume national leadership in cataloging and bibliography. It may be asserted that the great utility of the Card Division's services for other libraries has played a significant role in shaping the cataloging program of the Library of Congress and continues to influence it toward an increasing commitment to serve the other libraries of the nation.

In 1925, when Cronin began his apprenticeship to Charles Harris Hastings, there were 3,593 subscribers to the card service who purchased \$140,702 worth of catalog cards. By 1966 there were 19,000 subscribers who purchased over 63 million cards for almost \$4,000,000. The story behind this phenomenal growth, if it were told, would be dominated by the theme of Cronin's untiring work to speed LC's receipt of new books and rush them through the cataloging process so that catalog cards might be made available nationally as promptly as possible. Such an account would have to refer to his long effort to persuade publishers to make their copyright deposits early; his inducing publishers to send advance copies of their books to the now-defunct *U. S. Quarterly Book Review*; his establishment of the "All the Books Program" whereby more than 5,500 U.S. and foreign publishers today provide LC with advance copies of their publications for cataloging before publication date. It would include reference to his persuading U.S. publishers to print LC card numbers in their new books; his development of the "Cards with Books" program through which, in 1966, 84 wholesalers and publishers provided sets of catalog cards to libraries with their purchases of almost 42,000 titles. It should include reference to the provision of free LC cards with the publications sent abroad by the U.S. Book Exchange. Most important of all, it should mention the expansion of LC's acquisitions and cataloging program under Title II-C of the Higher Education Act of 1965 which enables the Library of Congress, through the Card Division, to increase its prompt provision of catalog information to the libraries of the United States.

Nor would the story be complete without reference to Cronin's administrative ingenuity in finding means to support the preparation and initial publication of many of the bibliographic tools and "technical publications" that the LC Card Division makes available for the benefit of librarianship and scholarship generally.

For more than forty years John Cronin gave very high priority among his many duties to the improvement of the services of the Card Division. That he did so is our very good fortune and a tribute to his judgment.

4. Cronin and the Revival of the Book-Format Catalog

LUTHER H. EVANS, *Librarian*
Columbia University School of International Affairs
New York

The publication of the *Catalog of Books Represented by Library of Congress Printed Cards* was a project which the Association of Research Libraries proposed to the Library prior to the MacLeish administration and prior to John Cronin's appointment as Chief of the Card Division. When the proposal was made again, early in the MacLeish administration, and was approved, it fell to Cronin to bear the main burden of seeing the project through with the publisher. To ensure the adequacy of the 167-volume set, he personally inspected the printed cards as mounted for the cameras, seeing that headings were supplied as needed, that the filing order was correct, etc. He spent long periods of time in Ann Arbor in connection with this work, and was thus also able to advise Edwards Brothers on technical problems concerned with the publication.

In June 1946, the ARL decided in favor of a supplement to the *Catalog* to cover the period August 1, 1942 to December 31, 1947. It did not favor a suggestion by Edwards that the issuance of monthly supplements in reduced facsimile be begun the following January. He estimated that only a week would be required for his work on each issue. On July 29, 1946, the Librarian raised the question in the Librarian's Conference whether LC should proceed to issue such supplements, and if so, whether through Edwards or the G.P.O. Cronin not only had to face up to seeing the new supplement through the press, but also to consider the new venture. On August 9, he reported to the Librarian's Conference that the Processing Department "was ready to make the definite recommendation that the Library agree now to assume responsibility for publishing a cumulative catalog in book form." He and Herman Henkle felt certain that it could be done "by one or another of the available methods on a reasonable cost basis."

Conference heard further details on September 27, when approval was given proposals presented by Henkle. "The procedure involves running extra copies of the printed cards for each of the cumulations, with leading shifted to the bottom, alphabetizing the cards, setting them in a frame which equalizes the white spaces, and photographing for offset printing." This work would be done by the G.P.O. The project would be financed by the catalog card printing appropriation, but the sales price would be set at a figure to cover all costs from the time the presses were stopped for releading. The decision at this stage was to approve publication of the cumulative catalog for one year (1947). On December 10, the decision was made to charge \$100 per year for the trial year, with LC absorbing any cost not thus reimbursed. At the same time, it was decided to continue the publication indefinitely, and, as earlier recommended by Cronin, to cease sending cards to

maintain the 106 depository catalogs (at a cost to LC approaching \$100,000 per year).

The issuance of supplements to the original *Catalog*, the evolution of the *Cumulative Catalog* into the *Author Catalog* and the *Subject Catalog*, and the publication of the *National Union Catalog*, is so well known to librarians, that I end the story here.

It might not be fair to say of these important publications that without Cronin they would not have come to pass, but it would be fair to say, I believe, that without his wise planning and sturdy guidance they would not have been as good or as certain of success.

5. John Cronin and Centralized Cataloging

RALPH E. ELLSWORTH
Director of Libraries
University of Colorado
Boulder, Colorado

It is important that we distinguish between the age of centralized cataloging and the age of shared cataloging if we are to make a correct assessment of John Cronin's contributions. The age of centralized cataloging began in the cave man era of American librarianship and ended a few years ago, about the time Bill Dix and his committee came up with the idea that the term "shared cataloging" would raise fewer hackles among the troglodytic university librarians than the term centralized cataloging did. The era of shared cataloging began at that time and is still with us. I'm sure that John Cronin and George Schwegmann and several other people at the Library of Congress understood the practical as well as the theoretical implications of centralized cataloging for academic librarianship. But there were others in Washington and many, many university librarians who failed to see the point, and this meant that the age of centralized cataloging was prolonged in spite of the efforts of John and many others.

The problem had two elements: (1) the necessity for developing a concept of the full cycle of bibliographic services so that people could understand the implications of centralized cataloging, and (2) the question of whether the Library of Congress could have a budget large enough to do the cataloging for all the libraries or whether this work would have to be paid for directly by the participating libraries. John always felt that the federal government should give the Library of Congress the money directly to do the work.

John understood clearly that the concept of "cooperative cataloging" had little significance because it left the center of gravity for cataloging in participating libraries and because it evaded the issue of standardization, which had to be faced once one understood what centralized cataloging meant. John took many actions that not only laid the basis for our present system of shared cataloging but actually became the system. For example, the printed catalogs of the Library of Congress, and now

the *National Union Catalog*, constitute the backbone of our present system. Likewise his willingness to let the Library of Congress organization and staff assume responsibility for centralized cataloging, long before this was an accepted responsibility in the minds of Congress, took both imagination and courage.

As a member of the ALA NUC Subcommittee, I can testify that John listened regularly, systematically, and carefully to the advice of this group of out-spoken, strong-minded, opinionated (present company excepted), and mean old guys. If he disagreed with us, he never sulked but insisted that we debate until we reached a consensus.

During this time John solved one major problem that is typical of his approach to the centralized cataloging situation and that is not generally known in the profession. University Microfilms, with the advice of the ARL committee, was trying to work out a satisfactory method to provide subject indexing for *Dissertation Abstracts*. At our request, John sent some of his staff to Ann Arbor to study the problem and then proposed a system that was quickly adopted and is still in effect. His analysis was quick and thorough and his action was not delayed.

John's opposition to the cataloging-in-source idea—printing L.C. card copy in each new book—has never been understood. It represented a setback for centralized cataloging no doubt. John may have been wrong, but I've always assumed that he had good reasons for his attitude because never once in the many years I have worked with him have I known him to take a position without good reasons for doing so.

John is the man who patiently made it possible for the age of centralized cataloging to become a reality in the age of shared cataloging.

6. John Cronin and Shared Cataloging

WILLIAM S. DIX, *Librarian*
Princeton University
Princeton, New Jersey

In the announcement of John Cronin's retirement (*L. C. Information Bulletin*, May 2, 1968) the paragraph summarizing his achievements concludes: "His greatest triumph was the bold and imaginative way in which he combined global acquisitions and shared cataloging in the National Program for Acquisitions and Cataloging. This achievement alone would have established him as one of the giants of the library and scholarly worlds." My personal tribute to John Cronin need consist of no more than a hearty endorsement of this judgment and a brief recital of the facts on which it is based. Others have praised John Cronin's formidable mastery of cataloging theory, but it is as a practical activist that I had occasion to watch him work.

The history of the NPAC or, as it is perhaps better known, the Shared Cataloging Program of the Library of Congress, has been described elsewhere. Many people had a share in its inception and de-

velopment. By January of 1965 the Librarian of Congress had approved in principle the program proposed by the Shared Cataloging Committee of the Association of Research Libraries, although he could not implement it without specific legislation. John Cronin had affirmed that if given the books and the catalogers, the Processing Department could meet the specifications being proposed. The Higher Education Act of 1965 was passed in November, Title II-C instructing the Library of Congress to acquire all library materials currently published throughout the world which are of value to scholarship and to provide and distribute catalog information promptly.

This unleashed John Cronin. Without waiting for appropriations, which did not begin until a token supplemental appropriation in May of 1966, he began active planning and negotiation. (This is where the adjective "bold" can be correctly applied.) It was John who recognized and demonstrated to the Shared Cataloging Committee that the copy produced by national bibliographies in other countries could be used effectively, thus in one pragmatic stroke cutting through prolonged and theoretical discussions of international codes, which are of course valuable but which could be bypassed by direct action in this instance. (This was, I submit, both "bold" and "imaginative.") It was John who worked out the complex procedures for getting this copy with the book to the Library of Congress in record time and who had in operation in the second month after the passage of the authorizing legislation a prototype shared cataloging program in cooperation with the *British National Bibliography*. ("Dynamic" is an understatement here.)

In other words, it was John Cronin who saw in the concept of shared cataloging a first but most important step toward real international cooperation among national libraries and who had the drive and the organizing skill to turn vision into reality in what must be a course record for this uncommon event. (This seems to me a pretty good measurement of a "giant" in our line of work.)

7. Cronin and the Third Edition of the Union List of Serials

FRANK B. ROGERS, *Librarian*
University of Colorado Medical Center
Denver, Colorado

When I arrived in Washington twenty years ago there were many formidable people on the scene; one of them was John Cronin, who had already been around for twenty years. Dealing with John was an awesome experience for a younger man; his tough face seemed to wear habitually a slightly belligerent expression, and it was only some years later that I realized that this was merely John's normal countenance assumed in repose. His great Irish laugh, frequently heard, and usually preceded by a convulsive little episode of silent heaving and smiling and twinkling, should have tipped me off earlier to the real Cronin. By the mid-fifties, we were sharing a room at the Edgewater Beach for a mid-

winter conference, and after observing John's twenty-four-hour schedule of comings, goings, bendings, and sideways maneuvers, it appeared to me that our chronological ages were inverted in respect to our capacities for activity, involvement, and exuberance.

Then ten years ago Andy Osborn and Bill Wright asked me to accept the chairmanship of the Joint Committee on the Union List of Serials. What really persuaded me was the knowledge that there was John Cronin standing by. Throughout the early planning sessions of the Committee, and later as operations began, John carried the major part of the load. Sometimes, when he was having his staff members fill us in on a subject, his short temper would come into evidence; sometimes John's method was to heap scorn on a notion, first reducing the boiling point of those assembled by attributing the idea to "a guy I was talking to the other day"; most of the time, he took a grandfatherly attitude, patiently explaining and pointing out the main chance. When John really wished to win a point which he felt was crucial, his tactic frequently was to offer, in great sorrow and reasonableness, to give in; it was exactly at those times when no one could bear to oppose him.

Besides John's solid grasp of the whole area of library processing activities, and his insights into ways of sharing resources and services, what always impressed me was his doggedness, and his essential unflapability. The library world has been well served by its admirable Cronin; he will be greatly missed.

8. John Cronin and the National Union Catalog

GORDON WILLIAMS, *Director*
Center for Research Libraries
Chicago, Illinois

In 1967 John Cronin wrote a brief history of the National Union Catalog (*Prospectus for the National Union Catalog, Pre-1956 Imprints*, London: Mansell Information/Publishing Ltd., 1967) in which he gives the names of many distinguished librarians who have contributed significantly to its development. Among these, one nowhere finds the name of John W. Cronin himself—an omission characteristic of his modesty but not of his usual accuracy. No one has contributed more to it, or done more to shape the form of this greatest of all union catalogs. From his appointment in 1932 as Assistant Chief of the Card Division of the Library of Congress, through his tenure, from 1951 to 1968, as Director of the Processing Department, John was directly concerned with the administration and operation of the National Union Catalog for more than thirty-five years. The responsibility was unavoidable; and his great contribution was not merely an assigned job well done, though of course there was that too, but his constant and active concern both to increase the scope of the catalog and to extend its usefulness and accessibility to all libraries.

What is now the National Union Catalog was begun by the Library of Congress in 1901 as a bibliographic tool for the Library of Congress, and included only the cards printed by the New York Public Library, the Boston Public Library, the Harvard College Library, the John Crerar Library, and a few others. Its coverage was gradually expanded through the years, but it was not officially designated the National Union Catalog until 1948, and it was not until 1952 that really strenuous efforts were begun to acquire a coverage of holdings more nearly consonant with its name in place of the former, more limited, goal. John Cronin's first great contribution was through his vision of the importance of such a truly national union catalog and then his energy and ingenuity in increasing the catalog's coverage.

Even with this, though, its information on the location of copies was at best only slowly and inconveniently accessible to libraries other than the Library of Congress itself, and the great wealth of bibliographic and cataloging information it contained, in addition to notations of location, even less accessible. Only if copies of the catalog could be made readily available to all research libraries could its full potential value be realized, and this meant publishing the catalog in book form. Many people have worked to help accomplish this, but to John Cronin more than anyone else is due the major credit. All else aside, in the end it was John Cronin's courage (an undertaking to edit for publication over fourteen million catalog cards from several hundred different libraries is not for the fainthearted), knowledge, and above all the confidence of many people that what he promised he would perform, which made the publication of the catalog possible.

9. Cronin and the Building and Organization of Collections

MAURICE F. TAUBER, *Professor*
School of Library Service
Columbia University, New York

Although John Cronin came to librarianship through the field of law, he quickly found himself developing strength in the basic characteristics of sound librarians—he was easily drawn to bibliography in its widest sense, and he was concerned with the overall control of publications on a national and international basis. Indeed, it is more than possible that his background in law, and his training in logic and evidence, gave him the insight and the tenacity to pursue his interests in developing the collections at the Library of Congress, and to support all programs which led to the organization of the collections for use.

Building of Collections

One has only to read the *Annual Report of the Librarian of Congress* for the years that Cronin was in charge of the Processing Department to discover immediately the wide range of activities in which he engaged, reflected in the acquisitions of materials from all parts of the

world. He was well aware of the "Objectives of the Library of Congress" in respect to the maintenance of the collections.¹ The three canons of collecting, as described by Mearns, were familiar to him. He was, with respect to the first canon, concerned about the Library of Congress' possessing "in some useful form all bibliothecal materials necessary to the Congress and to the officers of government of the United States in the performance of their duties." In its relationship to other governmental libraries, the Library of Congress would, of course, limit its collecting so as not to duplicate unnecessarily.

However, in the Mearns statement it was indicated that wherever the Library was strong in its collecting, it would maintain that strength in order to be of general service to technology and scholarship throughout the country. This is the pattern that the Processing Department has followed. The Shared Cataloging Program, with its acquisitional associations, is a prime example of the expansion of collecting so as to insure the enrichment of the resources of the Library of Congress as a national library.

The second canon of maintenance is that "The Library of Congress should possess all books (whether in original or copy) which express and record the life and achievements of the people of the United States." Exceptions to this canon include the official records of the federal government deposited with the National Archives. Again, the Library would collect such items as were needed for the convenience of its readers.

These two canons have represented the basic acquisitional goals of the Library, but, as noted above, the American people have needed resources from the world at large, not only for their governmental personnel, but for the people in general. So, "to understand its own records, the people of the United States must understand what went before and what exists elsewhere. The written records of European civilization are their concern as are also the records of Asiatic and African civilization and the records of the Americas. The people of the United States are a people of many pasts, being a people of many origins, and these pasts are part of their common past."

These two canons are extraordinarily broad, and are significant in terms of both money and time. Cronin had been well aware of the pressures of time and money, and it was one of his major decisions as a developer of the collections to press for sufficient funds to acquire the copies of small editions as they appeared from the presses of the world. He early recognized that delay in acquisition might not only mean perhaps not obtaining particular works, but also that it would cost more per item to seek out and acquire them at a later date.

The third canon reads as follows: "The Library of Congress should possess, in some useful form, the material parts of the records of other societies, past and present, and should accumulate, in original, or in copy, full and representative collections of the written records of those societies and peoples whose experience is of most immediate concern

to the people of the United States." The implementation of this canon meant (1) that the Library of Congress would be the depository for all foreign government publications and would attempt to acquire all *official* publications of all governments of the world, and (2) that, aside from official documents, the Library would not try to collect deeply in fields represented satisfactorily in other American libraries, except in general reference materials. This canon obviously is related to both time and money, and also requires setting limitations of scope. The basic idea of Cronin, however, was not to look at this canon as a caution in collecting, but rather as something to be reviewed as time went on and as the need for extending acquisitions became clearer.

This clarification, or extension, became realistic in the "National Program for Acquisitions and Cataloging." The year 1966² represented a landmark period in the development of the program, and libraries in the United States have benefitted from the massive success of the Processing Department, under the direction of Cronin. Other papers in this issue of *LRTS* will discuss individual connections of Cronin with specific activities, but it is relevant to indicate here that he was in the forefront of the introduction of the machinery for acquiring for American libraries in that one year over 1,600,000 publications from India, Indonesia, Israel, Nepal, Pakistan, and the United Arab Republic. Cronin was, therefore, directly instrumental in implementing the acquisitions policy of the Library.

The story of the development of the Shared Cataloging Program is provided in great detail in the 1966 *Annual Report of the Librarian of Congress*, and does not need to be repeated here. But the role of Cronin in gathering staff, in organizing the work in the various parts of Europe, and in coordinating these activities with the service of the Library of Congress itself should be recognized by the library profession. Cronin never stinted in giving of his physical stamina, his energy, and his dedication in his eagerness to complete a project, once it was designated as his responsibility. His earlier efforts with the "Cataloging-in-Source" experiment also demonstrated his personal industry in taking over a difficult task and seeking its solution.

Organization of Collections

The shrewdness of Cronin in the development of the collections at the Library of Congress spilled over into the vast array of problems in organizing collections for use. "For all practical purposes," he wrote, "cataloging and bibliography are the same thing, if looked at from the standpoint of international cooperation."³ This statement is basic to the understanding of Cronin's approach to the bibliographical control of materials, once they have been acquired. In "John W. Cronin: 4 Decades and a Title," which appeared in the *Library of Congress Information Bulletin* for September 27, 1965, L. Quincy Mumford, Librarian of Congress, in a citation to Cronin, recorded his activities in regard to the LC accession lists, the National Union Catalog, the "All the Books Program,"

the "Cards with Books Program," the card distribution service, the *Anglo-American Cataloging Rules*, the third edition of the *Union List of Serials*, and the implementation of Title II-C of the Higher Education Act.

Cronin considered cataloging and bibliography on a wide screen of international cooperation because there was no escape from the inability of libraries to cope with the growing aquisitional problems on an individual basis.⁴ In his paper on "Centralized Cataloging and University Libraries—Title II, Part C, of the Higher Education Act of 1965," William S. Dix⁵ wrote: "In this century the Library of Congress has inevitably been deeply involved in almost all plans for cooperation and centralization in cataloging among university and research libraries." The article by Dix reviews the efforts of the Association of Research Libraries, with the assistance of the Library of Congress, to break the impasse in cataloging that had developed among the libraries of the country in handling materials from foreign countries.

Cronin was in at the beginning of the Shared Cataloging Program. Dix wrote: "Cronin and his associates at the Library of Congress had moved ahead with commendable speed in their planning in anticipation of appropriations. By early October, 1965, they had drafted a comprehensive set of policy guidelines for implementing the legislation along the lines proposed by the ARL Committee."⁶

Although the precipitating movement to extend cataloging of difficult materials was in the background, the important immediate outcome was the enlargement of the acquisitions program of the Library of Congress as a national resource. The enabling legislation indicated that the funds provided would, first of all make it possible for the library of Congress to "acquire, so far as possible, all library materials currently published throughout the world which are of value to scholarship." The prompt cataloging of these materials and the distribution of printed cards were parts of the program. Also, it was possible for the Library of Congress "to use for exchange and other purposes any of these materials not needed for its collections."

Cronin was directly active in the establishment of the various offices in different parts of Europe to implement the project, and visited them personally. His visits were instrumental in the setting up arrangements for developing the program. Moreover, he was tremendously successful in obtaining cooperation of foreign librarians, publishers, and dealers in the overall project.

Among his more recent efforts has been the drafting of plans for the book publication of the pre-1956 National Union Catalog. Mansell of London has been given the contract for this project. The story of the National Union Catalog and the Library of Congress' other catalogs has been told in detail by Cronin.⁷

Cronin undoubtedly has made a lasting impression upon the libraries of the country as well as among libraries abroad for his work in organizing collections. His activity through various library associations, com-

mittees, and boards is well known. He was anxious to assist programs in centralization and cooperation. At the Library of Congress, he was similarly interested in centralized processing, and he was given the responsibility to control all processing functions in one department. He was certain that the Library of Congress would gain strength only as it had full control bibliographically of its collections.

Although most of his friends and acquaintances might not first think of John Cronin as a "bookman" in the commonly-accepted sense of that word, this librarian's work has been of enormous national and world importance in providing the essential materials for scholarship. In his work with his associates, he was firm and understanding. He was always ready to listen to librarians who visited with him, and he was grateful for any suggestions for the improvement of the work produced by his staff. His viewpoint, thus, was always larger than the Library of Congress, but without that view no one could have accomplished as much as he has for the Library of Congress.

REFERENCES

1. Mearns, David C. *The Story Up to Now: The Library of Congress, 1800-1946*. Washington, 1947, p. 211-212.
2. *Annual Report of the Librarian of Congress for the Fiscal Year Ending June 30, 1966*. Washington: Library of Congress, 1967, p. 25 ff.
3. Cronin, John W. "The Library of Congress National Program for Acquisitions and Cataloging," *Libri*, 16:113, 1966.
4. *Ibid.*, p. 113-114.
5. *Library Trends*, 10:97-111, 1967.
6. *Ibid.*, p. 105.
7. Cronin, John W. "The National Union and Library of Congress Catalogs: Problems and Prospects," *Library Quarterly*, 34: 77-96, 1964.

10. A Public Servant as Seen by a Private Publisher

DANIEL MELCHER
R. R. Bowker Company
New York

Effective public service is surely the highest calling, done as it inevitably is under conditions of large difficulties and small thanks. Within this elite, my favorite public servant is John Cronin. The fact that we seem always to "dig" each other in discussion of joint projects may be helped by the fact that I was myself for four years a government servant. However, I think it is helped even more by the fact that John is by instinct a business man. I remember once he urged me to bid on a certain project, arguing that the profit margin was potentially extremely attractive. I said "John, if you really think the successful bidder could make that kind of money you need more bidders with sharper pencils." John said: "Well, don't think I'm not looking for them! Why do you think I'm talking to you? Besides, if you got the contract and did make any such profit, we'd take half of it back in Federal taxes, and you'd

put the other half into some other new and useful Bowker services." (Bowker *had* for some years been ploughing most of its aftertax profits back into new services, but I don't recall any other librarian ever noticing!)

Confronted by a worthwhile proposal, John does not dwell on the possible objections—he pushes straight through to the problem of how to overcome them. At one point it was expedient (to save time) for the LC staff to keypunch a Bowker index direct from the original manuscript. Another man might have said, "Let's not chance it—we know it'll save but it might *look* like using public employees for private purposes." John started from the assumption that *if* it would save time and money for LC he'd do it—and just be ready with his proof of the benefit to LC if any question was ever raised.

I checked in with John before even thinking about launching our cataloging kit service (Lj Cards). I would have left the field to him if he'd wanted, but I got the same positive reaction from him I'd already had from H. W. Wilson, namely, "Come on in, the water's fine, and it may take *all* of us to keep up with the demand."

There was only one thing I regret about my association with John Cronin: that I am so much in his debt when it comes to lunches. He'd never let me pay. Though as for that, I guess he has put us all in his debt in far more important ways.

II. Cronin Spans the Continents

A. J. WELLS, *General Editor*
British National Bibliography
London

The full international effects of the Library of Congress Shared Cataloging Program have yet to be realised, but there is no doubt in my mind that they will be very great, turning the course of national and international bibliographical control. For those of us outside the U.S.A., and I have no doubt for those within as well, the Shared Cataloging Program will be inextricably linked with the name of John Cronin. For John, a man of great vision, energy and determination, came into the bibliographical centres of Europe like a tornado, gathering everything and everybody into the vortex of his amiably aggressive personality; determined not to accept defeat—though the problems seemed insuperable—he has the power to persuade others, not only to attempt, but to achieve the seemingly impossible.

The concept of internationally shared cataloguing is not new. It is more than a century ago that plans were formulated by such librarians as Jewett, Robinson, Muller for the international exchange of cataloguing data, but it has taken the resources of the United States, the imaginative, large-scale thinking of its librarians, the dynamic personality of a John Cronin to bring the concept to a practical issue; and without

the tireless energy and unshakable determination of Cronin we might still be thrashing about in the waters of uncertainty.

For us in Great Britain, the notion of cooperation with the United States of America was already well established. Since 1908 we had shared, more or less, a common cataloguing code and, by 1966, the date of inception of the Shared Cataloging Program, the staff of the *British National Bibliography* had made up their minds that whatever Anglo/U.S. differences might be written into the revised cataloguing rules, at that time nearing completion, they would bend everything possible to achieve maximum compatibility with the Library of Congress. Joel Downing, the senior editor of the *British National Bibliography*, laid the foundations of this policy when he visited LC in January 1965; and upon this foundation, the BNB/LC exchange of cataloguing data under the Shared Cataloging Program got off to a flying start.

But the effect of the Program has not ended there. Speaking for Great Britain, at least, the powerful ripples of this event have disturbed the complacent waters of our academic libraries and have aroused a new spirit which is evidenced in the critical re-examination of cataloguing processes in our national and academic libraries. It would be too much to claim that Cronin's efforts alone are responsible for this, for the University Grants Committee's Report of the Committee on Libraries and the Shackleton Report on the libraries of Oxford University were already in preparation when the meeting of national librarians and producers of the current national bibliographies of Great Britain, France, Germany, and Norway took place in London in January 1966. But what was strikingly significant about that meeting—the effect of which should not be overlooked—was the demonstration by Cronin of the *similarity* between the cataloguing practices of the various libraries and institutions represented. In the past, we have tended to talk about our differences and have overlooked the important fact that in almost every bibliographical description, no matter who prepares it, there are more similarities than differences. The essential genius of the Shared Cataloging Program, which was simply to build on these similarities, struck home that morning in London; and I believe it was Cronin's defiant challenge, as he invited us to notice the similarities between LC cataloguing and that of other national bibliographical centres in some such characteristic terms as "the entries in the national bibliographies are identical with the LC card and where they're not, by God, they're better!" that made us all think again about our attitudes to our own and others' cataloguing. Perhaps we had been wrong in assuming that only our own cataloguers were competent enough to prepare the records for *our* catalogues?

Such by-products of the Shared Cataloging Program will have a resounding effect on national and international cooperative cataloguing. A plan which started out as a "National Program for Acquisitions and Cataloging," aimed merely at achieving comprehensive coverage of world literature and the centralised cataloguing of that literature for

the libraries of the U.S.A., has the potential within it to stimulate and foster in the countries of the world a new, dynamic attitude towards shared cataloguing on a world basis.

One significant outcome in Great Britain has been the allocation of funds by the British government for a MARC Project, totally compatible with the LC MARC Project, so that, within the next few months, cataloguing for British books will flow into the LC MARC system with, we hope, little more than machine editing. With reciprocal systems in the bibliographical centres of the world, the task of comprehensive world cataloguing would become truly shared. Great Britain and the U.S.A., by agreeing on a standard set of principles for descriptive cataloguing, a standard format for machine communication of cataloguing data, and a standard book number for accessing a machine record have taken three important steps towards this global objective.

These are great events which it would be hard to match at any time in the history of our libraries. Librarians in the United States should be justly proud of the part they have played in the planning and creation of projects which have brought us so far along the road to international cooperation in the one-time intractable problems of bibliographical control. And among the names of those who head the list of men and women whose efforts have spanned the continents must surely be set the name of John W. Cronin.



STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Act of October 23, 1962; Section 4369, Title 39, United States Code)

1. DATE OF FILING
September 30, 1968
2. TITLE OF PUBLICATION
Library Resources & Technical Services
3. FREQUENCY OF ISSUE
Quarterly
4. LOCATION OF KNOWN OFFICE OF PUBLICATION (Street, city, county, state, zip code)
2901 Byrdhill Road, Richmond, Virginia 23205
5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers)
50 East Huron St., Chicago, Illinois 60611
6. NAMES AND ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR
PUBLISHER (Name and address)
American Library Association, 50 East Huron St., Chicago, Illinois 60611
EDITOR (Name and address)
Paul S. Dunkin, Graduate School of Library Service, Rutgers-The State University, New Brunswick, New Jersey 08903
MANAGING EDITOR (Name and address)
Miss Doralyn J. Hickey, School of Library Science, Univ. of North Carolina, Chapel Hill, N. C. 27514
7. OWNER (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.)

NAME American Library Association (No stockholders—non-profit organization)	ADDRESS 50 East Huron St., Chicago, Illinois 60611
---	---

8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES (If there are none, so state)

NAME	ADDRESS
------	---------

None

9. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES (Section 132.122, Postal Manual)
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes. Have not changed during preceding 12 months

10. EXTENT AND NATURE OF CIRCULATION

	Average No. Copies Each Issue During Preceding 12 Months	Single Issue Nearest To Filing Date
A. TOTAL NO. COPIES PRINTED (Net Press Run)	12,875	13,000
B. PAID CIRCULATION		
1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES	none	none
2. MAIL SUBSCRIPTIONS	11,079	11,054
C. TOTAL PAID CIRCULATION	11,079	11,054
D. FREE DISTRIBUTION (including samples) BY MAIL, CARRIER OR OTHER MEANS	80	79
E. TOTAL DISTRIBUTION (Sum of C and D)	11,159	11,133
F. OFFICE USE, LEFT-OVER, UNACCOUNTED, SPOILED AFTER PRINTING	1,717	1,867
G. TOTAL (Sum of E and F—should equal net press run shown in A)	12,876	13,000

I certify that the Statements made by me above are correct and complete.

(Signature of editor, publisher, business manager, or owner)

(Signed) Alphonse F. Trezze

Depository Libraries: The Out-Houses of the Government's Information Transfer System*

CLIFTON BROCK

Associate University Librarian
The University of North Carolina
at Chapel Hill

Problems associated with the impact of publications of the federal government on libraries are categorized in two ways. The first relates to the handling and organization of documents within libraries. No one approach is completely satisfactory; in practice, larger libraries tend to process and house documents separately from other publications, a method which may well restrict the flow of information to users. The second group of problems is associated with the growing tendency to exclude government-produced information from the depository library system, which itself may be inadequate to serve an expanding population and educational system.

IN THE PROCESS OF CONSIDERING, recently, some troublesome aspects of librarianship associated with government publications, a now-forgotten train of thought led me to recall an article on Marshall McLuhan which had crossed my path. Among other things the author had disclosed McLuhan's unlisted telephone number and maliciously invited readers to call him. I was tempted, but figured McLuhan had changed the number anyway. The idea, however, started me to imagining the conversation which might ensue if I could talk with the most provocative living thinker of the Western world. I think it might have gone something like this:

McLuhan: "Hello, who seeks me on this cool medium?"

Brock: "Mr. McLuhan, you don't know me, but I'm a librarian . . ."

McLuhan: "What? Don't kid me. Librarians are extinct. You mean you are an antiquated interface between senders and receivers."

Brock: "O.K. Have it your way. But I've got a problem. It seems that a good many thousand lib . . . er, antiquated interfaces, me among them, are concerned with certain problems related to government publications, and would like to find a few solutions. Can you help me?"

McLuhan: "That's easy, man. Massage them this message: tell them that since nationalism is a latent function of the print media, it will be consigned to the dustbin of history along with the print media. Ergo:

* Paper presented at the program meeting of the RSD-RTSD Interdivisional Committee on Public Documents, Kansas City, June 26, 1968.

there will be no more governments and no more publications, therefore—logically—there can be no more government publications. Tell your tribe to fold their tents and steal silently into the night.”

Those of you who have read McLuhan know that this silly syllogism is only a slight exaggeration of his real position. Somehow, as I observe the thousands of government publications pouring into my own library, I wonder if he has got the message. My own vision of the future is somewhat less apocalyptic. In it I can see Marshall McLuhan climbing to heaven on a stack of printed matter, a good part of it his own writing, and being welcomed with a mocking smile by the gatekeeper, Johann Gutenberg.

In any case, this paper will focus primarily on United States government documents and the federal depository library system. Within this area I can see plenty of problems, and picking and choosing among them is a problem in itself. I am less sure about the possibilities.

For starters, though, let me arbitrarily classify or dichotomize the problems into “intramural” and “extramural” varieties. You will recognize this as analogous to the federal government’s classification of its research and development programs. In the bureaucratic jargon, “intramural” research usually is referred to as “in-house” research. If we carry the jargon to its semantically logical conclusion, then “extramural” research would have to be labelled “out-house” research. The government, for obvious reasons, does not insist upon such logical or semantic purity—or impurity—but we need not be so politic.

As I see it, our “in-house” problems are those which relate to our own activities, as librarians, in organizing and servicing that information which comes to us in the form of government publications. In McLuhan’s jargon, they relate to what we do as “interfaces” in transferring information from producers to consumers. Our activities here, of course, are directly affected by the volume, form, structure and content of the information or publications which flow into our libraries, and they cannot be treated in isolation from various “out-house” problems. For the moment, however, I want to draw an arbitrary boundary and talk about that part of the system which is under our direct control.

I suppose our most serious in-house problems are money and people, or money to train, employ, and retain people with the requisite esoteric qualifications as documents librarians. Let me dodge that one for the time being, however, and talk about the problems of organization, or how we deploy people and publications in providing documents service. Since most of our depositories are in colleges and universities, and since my own experience is limited to the ivory tower, I will restrict the discussion to academia. Anything I may say which applies to public, special or other libraries is largely coincidental.

Organizationally, it seems to me that we have been the victims—and to some extent the passive victims—of our environments. Elsewhere, in writing for a group of laymen, I tried to explain the variable patterns of documents organization as follows:

The handling of government publications by libraries resembles guerilla warfare. Some libraries ignore them, hoping they will go away, which they don't. Others catalog and classify them just as they do other materials, perhaps in the hope that equal treatment will contain and pacify them, which it doesn't. As the tide mounts and more government publications infiltrate the stacks, many larger libraries bring in more troops, set up strategic hamlets in the form of separate documents departments, and economize by not cataloging their government documents. The solutions are about as numerous as those tried in Vietnam, and they work about as well.

You will recognize the various library situations buried in the analogy. What research we have on the organization of documents service shows two basic patterns, patterns which seem to be determined by the size of the institutional setting and—relatedly—by the size of document collections. Typically, in the college or small university (if there are any small universities left), documents service follows a pattern of decentralization of processing operations and materials, with acquisitions handled by an order department, and the documents themselves being cataloged and dispersed among the library collection. In this situation, the reference or "interface" job is built into a general reference department. This pattern might be labelled one of "form decentralization and reference or informational centralization."

In the medium-sized to large universities, we tend to get the opposite pattern of "form centralization and informational decentralization," with a separate documents department established to perform both processing and informational or reference functions, and with the publications themselves being maintained in a separate collection, usually by the Documents Office Classification, rather than being cataloged.

These patterns showed up rather clearly in a survey of academic depository libraries in the southeastern United States which I made a few years back. In this survey the percentage of depository items selected by a library was used as the independent variable. We found that of 26 libraries which selected less than 20 percent of items available, 19 followed the "small-library pattern" outlined earlier. On the other end of the spectrum, of 14 libraries selecting over 80 percent of items available, 9 maintained separate document departments which combined or centralized these functions.

The correlation between size, as measured by percentage of items selected, and classification systems was particularly strong on the upper end of the scale. Of 27 libraries which selected over 40 percent of available items, only 4 cataloged their documents and classified them along with other library materials. The others used the Documents Office Classification and exploited the classification economy made possible by the Daily Depository Shipping Lists and the retrieval economies provided through the *Monthly Catalog*.

Both of these patterns have their advantages and disadvantages which you know well and with which I don't propose to bore you. Given the financial and personnel constraints under which small academic libraries operate, the relatively low rate of documents input which they

absorb, and the comparatively unsophisticated research and information demands which they must service, I suspect they have little choice but to follow the small-library pattern. (Perhaps I should emphasize the adjective "comparatively," lest I commit too much of a provocation upon by colleagues who do not work in the multiversities.) Indeed, I am not sure but what this may be the optimum pattern for small libraries. It at least integrates documents and informational services related to documents into the established and known structure of overall library materials and services. While the input of documents into such libraries may be too low, the organizational pattern seems to place fewer artificial barriers in the path of output in the form of information to users. Perhaps, of course, those of you who work in smaller libraries will tell me, "Yes, the grass always looks greener," etc.

It does seem to me, though, that some searching questions might be raised about the performance of large libraries in this respect. Here the financial and personnel situation is somewhat less constricted, and more to the point and perhaps more accurately, the informational and research demands are far more specialized and sophisticated. Later I intend to flail the federal government for all sorts of sins in connection with the depository program, the transfer of information generally, and in particular for its blindness to the needs of large depository libraries. I think we must take our share of the licks, however. In the Weinberg Report and other government reports, much is implied or said explicitly about the failure of libraries, particularly research libraries, to function as sufficiently "active transferers and transformers of information." Someone has said of the Weinberg Report that "if you shoot off enough ammunition in all directions, you're bound to hit something." We can buy this, I think, and still recognize that we presented a large and vulnerable target and that we at least got winged.

Now it's a long way from these government critiques of library performance to the organization of documents service in large libraries. I'm not sure how I got out on this limb, nor if I can crawl back. I would put it to you, however, that in some small way our more or less neatly separated and segregated documents collections, frequently buried as far out of sight of the public as possible, and our specialized documents librarians, also frequently stashed away somewhere in isolation from their reference colleagues as well as from the public—all of this has contributed to slowing down and seriously impeding if not blocking the transfer of significant information to our users.

So much for at least one of our "in-house" problems. I said earlier that I was less sure about possibilities, and I certainly have no ready-made solution to this particular problem. I know of at least one very large research library which, in effect, has said, "to hell with the cost" and has cataloged and classified by Dewey every government document in its possession. I taught a documents course in that library and forced the students to carry through full information searches reaching from bibliographical citations in the *Monthly Catalog* and other tools

to physical retrieval of the documents themselves. They let me know in no uncertain terms that this particular type of solution carried its own built-in problems. A few other large academic libraries, which follow some form of subject divisional reference organization, have built their documents services into social science or science reference divisions. This is the pattern followed in my own library, and naturally I think it a preferable one, but I would not try to kid you that it has solved all the problems.

Of course, no matter how we organize documents reference service in the research library environment, we are faced with a basic problem which underlies all modern knowledge, the problem of specialization. I am a part-time student of political science. Like all other academic specialties, in recent years political science has gone "interdisciplinary" in a big way. One of my colleagues, bedevilled by the necessity to keep up with development in other fields, once observed sourly that "Political Science is a brazen hussy, sired by History out of Philosophy, who ran away at an early age to marry Sociology, consort bigamously with Psychology, flirting all the while with Statistics, and throwing herself unashamedly at Systems Theory, Cybernetics, and any other bastard discipline which comes down the pike." I try to tell my political science colleagues that such academic nymphomania is pure as the driven snow compared to the work which reference librarians must do.

Turning quickly to our "out-house" problems, it seems to me that they all relate—in one way or the other—to the federal government as a source of information and publications. There are enough problems in this area to keep us busy for years. We might—for example—note the inadequacy of the regulations and procedures through which depository libraries are designated. Despite the improvements made possible by the Depository Library Act of 1962, and the creation of over 300 new depositories since its passage, the system still is tied essentially to political boundaries which bear no clear relationship to library needs. Already, the leeway provided by the Act of 1962 is being overrun by the fantastic growth of educational institutions. For example, in the library newsletter of a new branch of the University of Wisconsin, we read: "We shall not be able to be a government depository; all designations in the first Congressional district are exhausted."

Earlier I noted that our "in-house" activities are directly affected by the form and content of the information and publications flowing into our libraries from the government. Here we might consider the apparently infinite range of formats in which publications arrive, the problem of deterioration of older documents, the serious inadequacies in bibliographic control at the source, etc., etc. And, of course, despite the voluminous output from government presses, there is never enough information provided to meet the insatiable demands of our users. No doubt most of you are familiar with the massive statistical output of the Census Bureau and other government agencies, and you know that a good documents librarian can fairly easily locate such esoteric bits of

information as the annual receipts of pool halls in Kansas City (\$534,000), the number of four-month old or older chickens in Buncombe County, N. C. (there are 216,879), or the number of brassieres shipped annually by American manufacturers (would you believe 203,628,000?). There are gaps, however. I once had a student come in and ask, "What percentage of American women have naturally curly hair?" Either I failed him or the federal government failed him; in any case, I blamed my inability to provide an answer on the assumption that the Census Bureau was too cowardly to try to find out. More seriously, though, what about the political scientist who needs to know such an apparently simple thing as the number of votes received by Lyndon Johnson in Mesa, Arizona, in 1964? He will look in vain, at least in the government's statistical output. Perhaps, for better or worse, these gaps in content will be filled by the proposed National Data Bank.

I think, however, that our most serious problem relates to the volume of publications flowing through the depository system and thus made available to our libraries. This volume, it seems to me, is far too low. I am referring here not to the low rate of selection by many small depository libraries, but to the increasingly smaller proportion of the full output of government publishing which is made available at all through the system.

As you know, the key to availability is the printing source within the government. Though there are some exceptions, the cutting edge is sharp and clear: publications printed by the Government Printing Office are distributed to depository libraries, or at least are available for selection by them; publications printed elsewhere than at GPO are not so distributed. A hundred-odd years ago, when the depository system was established, virtually all government publications were printed by the GPO, and a depository library had actual or potential access to the full output. This centralization of government printing held fairly steady until the 1930's and 1940's. Since then there has been wide decentralization and a vast proliferation of printing outside the GPO, with a corresponding decline of access—or at least reasonably efficient and inexpensive access—to publications by depository libraries. There is no time or need here to recite the details—the growth of departmental and agency printing plants (there are now about 350 of these plants and their publications output equals or probably surpasses that of the GPO), and the enormous output of research or technical reports (most of which are produced on contract or grant funds and printed by private sources).

I would add only a brief word about this business of research or technical reports. Many of us in academia have assumed that these fugitive, fly-by-night things are of concern only to special or industrial librarians. The government apparently operates under the same assumption, for, with the exception of a few agencies such as AEC and NASA, it has bestirred itself hardly at all to distribute them outside its own research community or contractors. Whatever the validity of this as-

sumption in the past, it is rapidly being undermined by the extension of government support to the social sciences and even the humanities and the consequent appearance of research reports in these fields. Yet the pattern of publication distribution which prevails in the "hard science" and technology area—with its emphasis upon primary distribution within the government and its satellite research community and with comparative neglect of secondary distribution to libraries—is being repeated in the social science area. Let me give you only one out of many possible examples. Several years ago the Office of Education initiated a Cooperative Research Program which has resulted in thousands of research reports, almost all of them printed by non-GPO sources. These reports have now been absorbed into the ERIC (Educational Research Information Center) program. In his wisdom, some OE official decided years ago that automatic secondary distribution of Cooperative Research Reports would be as follows: copies would be sent automatically and free of charge to the fifty state departments of education and to the fifty largest school systems in the country. Depository libraries, and libraries generally, were left out and since then have had to beg, buy and borrow these reports in an inefficient, problematical and expensive effort to acquire them. Apparently no one in authority recognized the fact that the bulk of educational research is carried on within universities, and that failure to distribute these reports to university libraries seriously short-circuits their information transfer function in this small area.

The problem is that these short-circuits have become almost the rule rather than the exception. The systems theorists speak of decline and atrophy in a system, which occurs when it fails to process the material, information, or what have you, which it is its function to process. I think it is not out of order to say that the depository system is declining, and may be in danger of atrophy, due to the circumstances which I have very superficially outlined. To pursue the analogy which I used earlier, I would say that depository libraries are becoming the "out-houses" of the government's information transfer system. This is happening because the plumbing which links us to publication and information sources within the government is being blocked and by-passed by accidental or irrelevant factors such as the decentralization of government printing and the failure of government officials to incorporate depository libraries into their new information transfer networks.

This brings us back to those prestigious government pronouncements calling for active, forced-draft information networks, information centers, and document-handling systems spreading across all fields of knowledge and all forms of publications, both in the government and private sector. I think our response to this, particularly the response of those of us who work in large research libraries, might well be to say to the government: "First, put your own house in order; get your own chaotic publication systems under better physical and bibliographic control. Once your own shop is in shape, then help us to restore our out-

house, and perhaps we can do a better job." We might even suggest that some of the millions of dollars being used to build the modern new ranch houses of information centers and transfer networks would be well spent simply restoring the plumbing which reaches out to that old Victorian mansion, the depository library.

I have been complaining about the federal government and ended up on a rather hortatory note. Let me lodge one more complaint in a somewhat lighter vein. Several years ago the Office of Education sponsored publication of an annotated bibliography of programmed instructional materials. Listed in the "Miscellaneous" section was something called "The Official Girlwatcher's Manual." This was written by someone named Joe Beagin, who was identified as the founder of the International Society of Girlwatchers. The annotation described the manual as a programmed text consisting of 200 frames and 110 pages in paperback; the field test population for which it was devised consisted of "any member of the International Society of Girlwatchers and other interested males." Listed as prerequisite for its use was "20/20 vision or corrected as required," and binoculars were recommended as desirable equipment. The cost was \$4.95.

This particular item came to my attention when I read in the papers that a United States Senator was calling for a cutback in appropriations to the Office of Education, on the ground that it was wasting money on such things. I immediately went to check the bibliography and found that it had been mutilated; two gummed sheets had been pasted over the pages describing the girlwatcher's manual. Apparently, following the Senator's attack, these pages had been mailed to recipients of the bibliography with the request that they be pasted in, and I found that this had been done by one of our student assistants as part of the routine. Fortunately, I was able to remove one of the sheets, and the other is so thin that you can easily read through it.

In any case, thinking it would be nice to have some audio-visual material for use in my documents class, I wrote a check for \$4.95 to the publisher in La Mesa, California, and asked him to send me a copy of the girlwatcher's manual. Nothing happened for several months and, I'm sorry to confess, I forgot about the matter. Recently, however, the check appeared in my bank statement, cashed by some outfit in New York. I still have not received my copy of the girlwatcher's manual. I wonder if any librarians active or interested in the documents field would be willing to join me in a taxpayer's suit against the government for fraudulent advertising.

Efficacy of Citation Indexing in Reference Retrieval*

THEODORE S. HUANG
*Director of the Library
Tri-State College
Angola, Indiana*

Citation and subject index search results were analyzed with relative recall ratio, relative rejection ratio, noise ratio, redundancy ratio, unit search decision, and unit search time as evaluative measures. Subject indexing was found to have greater efficacy than citation indexing. There is a very highly significant difference between the proportions of pertinent references among the unique references retrieved by the two types of searches. A backward search without noise elimination retrieved numerous references, mostly noise. The data indicate that it would be useless to do machine searches to retrieve all references with two-linked or three-linked connections, etc.

Introduction

CITATION INDEXING is the indexing principle to associate cited references with citing references. A citation index is an index whose basic record is a file of references to cited documents associated with references to citing documents. In citation indexes which exist in book form, under the references to cited documents, references to citing documents are listed, e.g., *Shepard's Citations* in law, an outstanding example of the citation index since 1873, and *Science Citation Index*, published since 1964.¹

A citation index can facilitate various uses of citations,² but, in the research to be reported here, we are concerned only with citation indexing as a reference retrieval device in documentation. A citation index can help us find out who and what document cited whom and what document among the publications covered. It can do this easily because of the way the entries are arranged: the cited references first, each followed by the citing references. If it is on magnetic tape or punched cards, searches can be made either from cited references to citing references or vice versa.

From the reference retrieval point of view, what matters is recall (the retrieval of pertinent references) and noise (the nonpertinent

* The research here reported has been supported in part by the U. S. Air Force under Grant No. AF-AFOSR 531-66, monitored by the Air Force Office of Scientific Research of the Office of Aerospace Research.

references retrieved): While citation indexing has increased its use in recent years through the relative simplicity of computer manipulation, yet, as stated in a 1963 Arthur D. Little report, "It is unclear how well citation references work, and no thorough evaluative studies have, to our knowledge, been made," so there is a "necessity of developing criteria for when and how much they should be used."³ Since July 1963 there have been several studies, but investigations will still be required to obtain an adequate knowledge of the various aspects of citation indexing. The research to be reported here is a contribution toward this end.

Object and Scope

The research is an investigation into the efficacy of citation indexing as a reference retrieval device in documentation, especially in comparison with subject indexing. A backward search, i.e., a search from the citing items to the cited items, was done for one topic through the third step by checking the documents themselves. A forward search, i.e., a search from the cited items to the citing items, and a subject index search were done for three topics. The forward search was pursued step by step until no unique reference was further retrieved. It was done by searching the 1965 *Science Citation Index*. The subject index search was done by examining the 1965 *Bibliography of Agriculture, Biological Abstracts, Chemical Abstracts, and Index Medicus*, the major subject indexes in the field chosen for testing, genetics.

The three topics of current research interest were submitted by three scientists, each with a list of terms and a list of significant pertinent references. For each topic a statement of the scope of the literature search was made after discussions between the searcher and the scientist who had submitted the topic. The topics follow:

- (1) The Kell-Cellano (K-k) genetic system of human blood factors.
- (2) Self-incompatibility in plants, *Primula*, *Oenothera*, *Brassica*, *Lycopersicon*.
- (3) Antigenic relationships among the gram-negative bacteria, *Salmonella*, *Escherichia coli*, *Proteus*, and *Shigella*.

Collection of Data

Data were collected through the above-mentioned searches, and through the pertinence judgment of retrieved references. All searches were done by the same searcher. No time limit was set for any of the searches. All references were retrieved except those in languages other than English.

The search terms and the search references for each topic were based on those suggested by the scientist. No limit was placed on the number of terms or references the scientist might suggest for his topic.

Topic 2 was randomly chosen for the backward search. There were seven search references for topic 2. One search reference, which is a review article and cites 384 English references, was excluded, because its

extraordinarily large number of cited references would have unduly affected the mean of references cited per citing reference.

A forward search and a subject index search were done for topics 1, 2, and 3. For each topic the subject index search was always completed first before the forward search was started. Search time and search decisions were recorded. Errors were recorded when noticed. Each error in an entry was counted only once no matter how often the same entry was retrieved.

In the forward search, the searcher did not eliminate any of the citing references by scanning the titles. This was done to test the claim that a document may be pertinent although its title may appear not. (One has to read the entire document before one knows whether it is pertinent.) To initiate the forward search, five search references were used for topic 1, seven search references for topic 2, and sixteen search references for topic 3.

The subject index search was done in the normal way. All references considered as pertinent by the searcher scanning the titles were retrieved. References were not retrieved if they were considered to be nonpertinent by the searcher. However, a reference was retrieved when there was any doubt as to its nonpertinence. Abstracts, if available, were not read during search, because the use of abstracts is outside the scope of this study.

The annual subject index of the 1965 *Bibliography of Agriculture* is alphabetical, often with subdivisions under each heading. The annual cumulative subject index of the 1965 *Biological Abstracts* is an enriched permuted title index, i.e., a permuted title index sometimes with words not originally in the title added. The annual subject index of either vol. 62 (January-June 1965) or vol. 63 (July-December 1965) of *Chemical Abstracts* is alphabetical, each heading with modifiers to make it more specific. The 1965 *Index Medicus* has in each of its twelve monthly issues a subject section. Parts 2 to 4 of the 1965 *Cumulated Index Medicus* are the subject index (A-E, F-O, and P-Z). Broad subject headings are used in *Index Medicus* and in *Cumulated Index Medicus*. Since there is no subject index that covers all the appropriate journals presently covered by a combination of two or three of these indexes for a given topic, these indexes have to be used, and in appropriate combinations. There are variations among these subject indexes as to the way the headings are derived, the degree of specificity of the headings used, and their arrangement. While we do not know which of these variations is the best, nor do we know whether any other variation may be better than these, we do know that improvements can be made for these indexes. When a better subject index is devised and encompasses broader subject coverage, better search results will be possible. In fact, since the subject index search was done by using more than one subject index, redundancy, search decisions, and search time were increased for the subject index search.

Pertinence Judgment

Pertinence is the presence in the document of information that is within the scope of the topic as defined prior to the search. The pertinence of the retrieved references was judged by the pertinence of the documents they represented.

For the references retrieved by the backward search, the pertinence of a cited reference was determined by the citing author's testimony.⁴ That is, by checking the passage(s) in which it is cited in the citing document, it was judged pertinent if the citing author is dealing with information within the scope of the topic as defined prior to the search; otherwise the cited reference was judged nonpertinent. This method of determining the pertinence of a reference depends not only on the citing author, but on the person who does the checking in the citing document. It was used for the relative ease in use it affords.⁵ In this research the searcher did the checking, and he often checked both the citing document and the cited document before the cited reference's pertinence was determined.

For the references retrieved by the forward and the subject index searches, the pertinence of a retrieved reference was determined by the scientist after reading the document in its entirety. Since there might be facets of a topic that could not be encompassed in the statement of the scope which was defined prior to the searches, it was thought advisable to include the "useful to research" concept in the scientist's judgment of pertinence. Thus, pertinence is the presence in the document of information that is within the scope of the topic and is also useful to research on the topic. Pertinence is by this definition made specific to the research needs of the scientist who has submitted the topic.

In the analysis of data, it was found that when the "useful to research" concept was applied in the pertinence judgment of the documents retrieved for topics 1 and 2, the results were the same as when the "useful to research" concept was not applied. On the other hand, in the pertinence judgment of the documents retrieved for topic 3, a large number of the documents were judged as containing information within the scope of the topic but not useful to the scientist's research. Topic 3 demonstrates that a topic may have a scope which is not very simple and neat.

Evaluative Measures

The data thus collected include the number of unique pertinent references, the number of unique nonpertinent references, the number of redundant references, the number of search decisions, and the amount of search time.

Errors in index entries were noted during the searches. Yet they are not evaluative measures by which citation indexing and subject indexing can be compared. Nor is journal coverage or time lag. These, as well as errors in entries, format, print, and even price, can be used to

evaluate a particular index, but not indexing. While we must use indexes in testing the efficacy of indexing, there is a distinction between indexing as a principle based on which an index is made, and an index which is compiled and produced, based on a type of indexing. Pertinent reference may fail to be retrieved by searching a particular index, simply because these references have not been entered either due to time lag or due to omission of the publishing journal in its coverage. Such effects can be eliminated by considering only those retrieved references which are entered in both types of indexes in the analysis of data for comparing two types of indexing.

For the data based on the results of any literature search with the pertinence of the references judged, the pertinence ratio (P) can always be computed by dividing the number of unique pertinent references retrieved (W) by the total number of unique references retrieved (M).⁶ The higher the ratio the better. This may be regarded as the basic evaluative measure. However, this measure in itself does not consider retrieval efficiency, nor is this measure alone adequate in comparing two index searches for the same topic.

Efficacy of any indexing is the capacity of index(es) based on this type of indexing to lead to pertinent reference(s) with(out) non-pertinent reference(s) over a lapse of time. Efficacy of indexing consists in retrieval effectiveness and retrieval efficiency. Appropriate evaluative measures are discussed below.

(A) *Evaluative Measures (Retrieval Effectiveness)*. To evaluate the retrieval effectiveness of one type of indexing as compared with another type of indexing, we use relative recall ratio (R) and relative rejection ratio (J).

(1) Relative recall ratio.⁷ Recall is the retrieval of pertinent references. Relative recall ratio (R) for a particular type of indexing is the number of unique pertinent references retrieved by searching one type of index (W_1 or W_2), divided by the total number of unique pertinent references retrieved by searching both this type of index and the other type of index in comparison (W_t). When the same pertinent reference is included both in W_1 and in W_2 , it is counted only once in W_t . The higher the ratio the better.

(2) Relative rejection ratio. Rejection is the nonretrieval of nonpertinent references. Relative rejection ratio (J) for a particular type of indexing is the number of unique nonpertinent references not retrieved by searching this type of index but retrieved by searching the other type of index in comparison ($Z_t - Z_1$ or Z_2), divided by the total number of unique nonpertinent references retrieved by searching both types of indexes (Z_t). When the same nonpertinent reference is included both in Z_1 and Z_2 , it is counted only once in Z_t . The higher the ratio the better.

(B) *Evaluative Measures (Retrieval Efficiency)*. To evaluate the retrieval efficiency of one type of indexing, we use noise ratio (N), re-

dundancy ratio (D), unit search decision (E), and unit search time (F).

(1) Noise ratio.⁸ Noise is the nonpertinent references among references retrieved. Noise ratio (N) is the number of unique non-pertinent references retrieved by searching a particular type of index (Z_1 or Z_2), divided by the total number of unique references retrieved by the same search (M_1 or M_2). The lower the ratio the better. It can be seen that the pertinence ratio and the noise ratio for the same unique references retrieved in an index search are complementary.

(2) Redundancy ratio. Redundancy is the recurrence of identical references among references retrieved. Redundancy ratio (D) for a particular type of indexing is the number of redundant references retrieved by searching this type of index (U_1 or U_2), divided by the total number of references retrieved by the same search (T_1 or T_2). The lower the ratio the better.

(3) Unit search decision. The total number of decisions made in searching a particular type of index (S_1 or S_2), divided by the total number of unique references retrieved by the same search (M_1 or M_2), results in the unit search decision (E). The lower the number the better.

(4) Unit search time. The total search time used in searching a particular type of index (Y_1 or Y_2), divided by the total number of unique references retrieved by the same search (M_1 or M_2), results in the unit search time (F). The briefer the time the better.

Redundancy ratio, unit search decision and unit search time are not crucial measures. Since the searches are made to retrieve pertinent references, those measures involving the number of pertinent references retrieved are more important.

The data used for computing pertinence ratio, relative recall ratio, relative rejection ratio, and noise ratio can be presented in a 2×2 contingency table as follows:

	Pertinent References	Nonpertinent References	Total
Index Search A	W_1	Z_1	M_1
Index Search B	W_2	Z_2	M_2
Total	$W_1 + W_2$	$Z_1 + Z_2$	$M_1 + M_2$

An appropriate statistical test can be applied to the data in such a 2×2 contingency table to see whether the proportion of pertinent references among the unique references retrieved by one type of index search is significantly different from the proportion of pertinent references among the unique references retrieved by the other type of index search.⁹

Assumptions and Hypotheses

The searches were done in a way to retrieve all the pertinent references that can be retrieved. As can be seen from the above, there are

assumptions in this research. They are: (1) each scientist wants as many pertinent references as possible when he is given a list of references on his research topic; (2) each scientist wants a few nonpertinent references as possible when he is given a list of references on his research topic; and (3) a searcher must spend as little time as possible to get the same results of reference retrieval.

While we would let the data lead us to the findings, we did formulate two hypotheses before we started the collection of data. They were: (1) a backward search, without the elimination of noise at each step, will soon step by step retrieve an overwhelming number of references, most of them being noise, and with the noise increasing at each step; and (2) there is a significant difference between the proportion of pertinent references among the unique references retrieved by the subject index search and the proportion of pertinent references among the unique references retrieved by the forward search.

Backward Search

In using a citation index, the cycling technique is often recommended.¹⁰ Cycling consists of the search in a citation index for references citing the search references known to be pertinent for a topic, and also the search in the footnotes and bibliographies of the documents represented by the search references for references cited there. This combination gives one the "ability to go both forward and backward in time."¹¹ For convenience, the former is called forward search, and the latter backward search. When there exists a citation index that covers journals over a long period of years, e.g., 1900-1970, then with any search reference published in a journal thus covered, its cited references can be retrieved through search in the citation index if it is available on magnetic tape or punched cards. Efforts have been made toward formulating citation index search operations in mathematical notation to facilitate programming for computer search.¹² The Institute for Scientific Information, publisher of the *Science Citation Index*, has the citation data on magnetic tape. After it continues the *Science Citation Index* operations for years, in time it will have years of citation data on tape, and thus both forward and backward searches can be made in machine searches. In the M.I.T. Technical Information Project, which uses a time sharing computer operated by Project MAC, searches include finding all papers that cite a given paper, and all papers that are cited in a given paper, etc.¹³ It should be desirable to investigate what backward search could do for us, and how we could best do it.

As related above, the backward search in this research was pursued for three steps, starting with six references, for topic 2. The data thus derived are summarized below.

The references cited by the six starting references total 122, of which there are 107 unique references (first step). A random sample of 20 was taken. These 20 references cite a total of 442 references, of which there are 343 unique references (second step). A random sample of 20 was

again taken from among the 343 unique references. These 20 references cite 237 references, of which there are 201 unique references.

We know that 107 unique references are cited by the six starting references, but what is the total number of unique references cited by these 107 references, and what is the total number of unique references cited by the unique references cited by these 107 references? As sampling was done at the second step and at the third step, such total numbers can only be estimated.

The estimated total of unique references which could be retrieved after two steps of the backward search started with the six references is 1,942. The estimated total of unique references which could be retrieved after three steps of the backward search is 20,383, and 95 times out of 100 the total unique references that could be retrieved would be greater than 8,510.¹⁴

The redundancy ratio at each step can be computed as follows:

For the 122 references cited by the six starting references, the redundancy ratio is $15/122 = 12.30\%$. For the 442 references cited by the 20 references in the stage A sample, the redundancy ratio is $99/442 = 22.40\%$. For the 237 references cited by the 20 references in the stage B sample, the redundancy ratio is $36/237 = 15.19\%$.

Based on the citing author's testimony, the 20 references in the stage A sample consist of 6 pertinent and 14 nonpertinent ones. The 20 references in the stage B sample consist of 2 pertinent and 18 nonpertinent ones. Thus, for the stage A sample, the pertinence ratio is 30%, the noise ratio 70%; for the stage B sample, the pertinence ratio is 10%, the noise ratio 90%.

The main source of this overwhelming noise is the multi-unit nature of documents, i.e., documents containing more than one unit of information. Frequently a citing author may cite references in relation to units of information other than the one for which the backward search was done. Thus a pertinent reference often cites nonpertinent references. This basic fact accounts for not only the overwhelming noise, but the relatively little redundancy, and therefore, the immense number of total unique references that could be retrieved. The data thus affirms the first hypothesis that a backward search, without the elimination of noise at each step, will soon step by step retrieve an overwhelming number of references, most of them being noise, and with the noise increasing at each step.

As noise increases to 90% after the third step of the backward search, there is serious doubt as to the need for machine search that will give the scientist all the references that have three-linked connections with the starting references, i.e., all references cited by the references cited by the references cited by the starting references. In fact, as noise increases to 70% after the second step of the backward search, there is doubt even as to the need for machine search that will give the scientist all references that have two-linked connections with the starting references, i.e., all references cited by the references cited

by the starting references.¹⁵ This should give one some idea of what to cope with in programming for backward search by machine.

Apparently it is essential to eliminate the nonpertinent references at each step, either by not retrieving them, or by quickly eliminating them after retrieval, in order for a backward search to be of any use in a literature search for a scientist on a specific topic.

Results of Subject Index and Forward Searches

For a general analysis the results of the subject index and the forward searches for topics 1, 2, and 3 are summarized in Table 1. The evaluative measures are computed and presented in Table 2.

The effects of journal coverage and time lag can be eliminated by considering only those retrieved references which were published in 1965 and entered in both types of indexes. The summary of data for such a final analysis of the search results for the three topics is given in Table 3, and the evaluative measures are computed and shown in Table 4. Unit search decision and unit search time cannot be computed in Table 3, because the total number of search decisions and the total search time cannot be separated as to what parts of them were for the 1965 references only, in the case of the subject index search. For topic 1, one pertinent 1965 reference was retrieved by both the subject index search and the forward search. For topic 2, seven pertinent and one nonpertinent 1965 references were retrieved by both types of index searches. For topic 3, the data were derived with the "useful to research" concept applied in the pertinence judgment of references. (It makes no difference whether the "useful to research" concept was applied in the pertinence judgment of references retrieved for topics 1 and 2.)

For topic 1, the forward search is better than the subject index search with regard to pertinence ratio, relative recall ratio, relative rejection ratio, noise ratio, and unit search time. They are about the same with regard to redundancy ratio. With regard to unit search decision the subject index search is better. Topic 1 is of emerging research interest, and so far relatively only a few papers on the topic have been published. The forward search done for topic 1 was started with references that are key papers. The search results indicate that the forward search is quite effective. It is worth further study to see whether the forward search may quite regularly prove effective under certain circumstances, and, if so, under what circumstances.

For topics 2 and 3, the subject index search is better than the forward search with regard to pertinence ratio, relative recall ratio, noise ratio, and unit search decision. With regard to relative rejection ratio, the subject index search is better for topic 3, and it is the same as the forward search in the final analysis for topic 2, although not as good as the forward search in the general analysis of the search results. The forward search is better with regard to redundancy ratio and unit search time. It is clear that for topic 2, the forward search cannot re-

Table 1
General Analysis of Search Results for Three Topics: Summary of Data

	Topic 1		Topic 2		Topic 3	
	Subject Index Search	Forward Search	Subject Index Search	Forward Search	Subject Index Search	Forward Search
Total number of references retrieved	13	13	49	2	275	150
Total number of unique references retrieved	9	9	25	2	115	124
Total number of unique part. ref. retrieved	3	5	16	0	101	62
Total number of unique nonpert. ref. retrieved	6	4	9	2	14	62
Total number of redundant references retrieved	4	4	24	0	160	26
Total number of search decisions	17	22	32	16	58	264
Total search time	394 m. 20.8 sec.	54 m. 29.5 sec.	529 m. 31 sec.	20 m. 15 sec.	1764 m. 34.7 sec.	535 m. 36.2 sec.

Table 2

General Analysis of Search Results for Three Topics: Evaluative Measures

	Topic 1			Topic 2			Topic 3		
	Subject Index Search	Forward Search	Subject Index Search	Subject Index Search	Forward Search	Subject Index Search	Subject Index Search	Forward Search	
Pertinence ratio (P)	33.33%	55.56%	64.00%	64.00%	0	87.83%	50.00%		
Relative recall ratio (R)	37.50%	62.50%	100.00%	100.00%	0	61.96%	38.04%		
Relative rejection ratio (J)	40.00%	60.00%	18.18%	18.18%	81.82%	81.58%	18.42%		
Noise ratio (N)	66.67%	44.44%	36.00%	36.00%	100.00%	12.17%	50.00%		
Redundancy ratio (D)	30.77%	30.77%	48.98%	48.98%	0	58.18%	17.33%		
Unit search decision (F)	1.89	2.44	1.28	1.28	8	0.50	2.13		
Unit search time (F)	43 m. 49.0 sec.	6 m. 3.3 sec.	21 m. 10.8 sec.	10 m. 7.5 sec.	15 m. 20.6 sec.	4 m. 19.2 sec.			

Table 3

Final Analysis of Search Results for Three Topics: Summary of Data

	Topic 1		Topic 2		Topic 3	
	Subject Index Search	Forward Search	Subject Index Search	Forward Search	Subject Index Search	Forward Search
Total number of references retrieved	5	7	4	1	106	85
Total number of unique references retrieved	3	4	2	1	45	67
Total number of unique pert. ref. retrieved	1	3	1	0	32	24
Total number of unique nonpert. ref. retrieved	2	1	1	1	13	43
Total number of redundant references retrieved	2	3	2	0	61	18

Table 4
Final Analysis of Search Results for Three Topics: Evaluative Measures

	Topic 1		Topic 2		Topic 3	
	Subject Index Search	Forward Search	Subject Index Search	Forward Search	Subject Index Search	Forward Search
Pertinence ratio (P)	33.33%	75.00%	50.00%	0	71.11%	35.82%
Relative recall ratio (R)	25.00%	75.00%	100.00%	0	57.14%	42.86%
Relative rejection ratio (J)	33.33%	66.67%	50.00%	50.00%	76.79%	23.21%
Noise ratio (N)	66.67%	25.00%	50.00%	100.00%	28.89%	64.18%
Redundancy ratio (D)	40.00%	42.86%	50.00%	0	57.55%	21.18%

trieve any pertinent reference. Topic 3 has an extended scope. The searches retrieved a great many references. Their pertinence judgment necessitates the application of the "useful to research" concept. The analysis of the search results leads to the conclusion that for topics 2 and 3 the subject index search has greater efficacy than the forward search.

It can be seen that the subject index search is always better than the forward search with regard to unit search decision, while the forward search is always better with regard to unit search time.

Combined Data and Overall Analysis

To look at the search results for the three topics in the field of genetics as a whole, we have the combined data in Table 5, based on the retrieved 1965 references which were entered in both types of indexes, and whose pertinence was judged with the application of the "useful to research" concept. Given in Table 6 are the evaluative measures computed for the combined data. The subject index search leads in all measures except redundancy ratio. It has a high redundancy ratio partly because more than one subject index and a great many terms were used in the search.

When the retrieved unique references in the combined data are classified according to their pertinence or nonpertinence, such data can be presented in a 2×2 contingency table and a test of significance performed. Since the sample sizes, N_i , for the three topics are very different, Cochran's method is used for the test of significance.¹⁶ Table 7 is

Table 5
Combined Data of Search Results for Three Topics

	Subject Index Search	Forward Search
Total number of references retrieved	115	93
Total number of unique references retrieved	50	72
Total number of unique pert. ref. retrieved	34	27
Total number of unique nonpert. ref. retrieved	16	45
Total number of redundant references retrieved	65	21

Table 6
Evaluative Measures for the Combined Data of Search Results for Three Topics

	Subject Index Search	Forward Search
Pertinence ratio (P)	68.00%	37.50%
Relative recall ratio (R)	55.74%	44.26%
Relative rejection ratio (J)	73.77%	26.23%
Noise ratio (N)	32.00%	62.50%
Redundancy ratio (D)	56.52%	22.58%

Table 7

Combined Data for Three Topics by Pertinence: 2 x 2 Contingency Table

Topic	Pert. Ref.	Nonpert. Ref.	Total	Proportion of Pert. Ref.
1 Subject Index Search	1	2	3	0.3333
Forward Search	3	1	4	0.7500
Total	4	3	7	0.5714
2 Subject Index Search	1	1	2	0.5000
Forward Search	0	1	1	0.0000
Total	1	2	3	0.3333
3 Subject Index Search	32	13	45	0.7111
Forward Search	24	43	67	0.3582
Total	56	56	112	0.5000

the 2×2 contingency table with proportion of pertinent references given.

The overall test is to test the hypothesis that there is a significant difference between the proportion of pertinent references among the unique references retrieved by the subject index search and the proportion of pertinent references among the unique references retrieved by the forward search. The null hypothesis is that there is no significant difference, in other words, that there is no association between the difference in the proportions of pertinent references among the unique references retrieved and the types of index search. The test criterion computed for the data in Table 7 is 3.38, which corresponds to a probability of 0.0007. That is, the value of the test criterion, 3.38, would be expected to occur by chance only seven times in ten thousand times if the null hypothesis is true. Thus the difference in the proportions of pertinent references among the unique references retrieved is very highly significant. The data thus affirms the second hypothesis.

Conclusions

The two hypotheses formulated prior to the data collection have been affirmed by the analysis of the data derived from the searches done in this research. The differences between the subject index search and the forward search in a citation index which were done for each of the three topics are: (1) the indexes used for the two types of searches are based on different types of indexing, subject indexing and citation indexing; and (2) during the forward search in a citation index no

reference was eliminated through the scanning of the titles, while during the subject index search references were eliminated when considered as nonpertinent by the searcher scanning the titles. This kind of elimination is normal during subject index searches. It was not applied during the forward search because we wanted to find out whether pertinent references may have unlikely titles and turn up in unexpected corners as claimed.

The subject index search has greater efficacy than the forward search in a citation index for the combined data of the search results for all three topics. The former is better with regard to all evaluative measures except redundancy ratio.

The forward search in a citation index could be a supplementary aid when additional pertinent references are needed after the subject index search has been completed. There are pertinent references retrieved by one but not by the other. A check of the 1965 pertinent references retrieved by the forward search for topic 1 shows that two references were entered in the subject indexes but not retrieved by the subject index search. For topic 3, seventeen 1965 pertinent references retrieved by the forward search were entered in the subject indexes but not retrieved by the subject index search. On the other hand, twenty-five 1965 pertinent references retrieved by the subject index search were entered in the citation index searched but not retrieved from it by the forward search. When and if additional pertinent references are needed even at the cost of reduced efficacy, the forward search in a citation index may be useful to supplement the subject index search.

Based on the data in this research, there are three types of topics. The first type is one of emerging research interest, with a concentrated citation pattern. Only a few papers were written on the topic, and those who work on the topic know these papers well, and cite them very frequently. A forward search retrieves a few references, just over half of which are pertinent. Topic 1 is an example.

The second type is one in relation to which a number of papers, written over the years, are scattered among citations. A forward search retrieves very few references, all noise. Topic 2 is an example.

The third type is of extended scope with a great many related papers. A forward search without the elimination of noise at each step retrieves a large number of references, mostly noise. Topic 3 is an example.

In further research with more topics in various subject fields, it will be worth knowing whether other topics fall into these types, whether there are other types, and, more importantly, whether most of the topics pertain to one type, and, if so, which type. Such knowledge will guide us in our index searches.

The claim has been made in the literature that the citation index gives one the "ease with which one can obtain a negative result with a high degree of certainty."¹⁷ In this research when the citation index search failed to retrieve any pertinent reference for topic 2, the subject

index search retrieved one 1965 pertinent reference and two 1964 pertinent references which were all entered in the citation index searched. Thus this claim has not been borne out by our data. In fact, when a citation index search does not retrieve any pertinent reference, it simply means that none of the source items covered by the citation index has cited any of the search references used in the search. Yet this does not give us any degree of certainty that there is no pertinent reference among the source items.

It has been claimed that a citation index search retrieves pertinent references unexpectedly from fields unfamiliar to the scientist who initiates the literature search. In this research the citation index searches for all three topics have not retrieved a single pertinent reference that appears in a field unfamiliar to the scientist who submitted the topic. Thus this particular claim has not been borne out by the data either.

Without the elimination of noise at each step, a backward search leads to an immense number of references, whereas a forward search yields a relatively small number of references.

The pertinence ratio decreases while the noise ratio increases with each step of a backward search or a forward search. Thus it is essential to eliminate noise at each step. While no cycling was directly done in this research, the data indicate that cycling would lead to much noise, just as its two components, backward search and forward search, would most of the time, when the elimination of noise at each step is not done. So-called "automatic tracing"¹⁸ would be too costly in terms of noise. It would be useless to do machine searches to retrieve all references that have two-linked connections, three-linked connections, etc. It may be more effective to limit a forward search to one step only, and this may be useful to obtain a few pertinent references as an introduction to the literature.

The research needs replication. In further research noise should be eliminated at each step of a forward search or a backward search, now that we know that few or no pertinent reference will turn up unexpectedly in unfamiliar fields. More data on cycling should be obtained for various topics. The results of cycling should be compared with those of subject index searches.

REFERENCES

1. The 1961 *Science Citation Index* was published in 1963, the same year the *Genetics Citation Index* appeared.
2. Westbrook, J. H. "Identifying Significant Research," *Science*, 132(3435):1229-1234, Oct. 28, 1960. Garfield, Eugene. "Citation Indexes in Sociological and Historical Research," *American Documentation*, 14(4):290, Oct. 1963. Kessler, M. M. "Technical Information Flow Patterns," in: *Proceedings of Western Joint Computer Conference, 1961*, pp. 247-257. Garfield, Eugene; Irving H. Sher; and Richard J. Torpie. *The Use of Citation Data in Writing the History of Science*. Philadelphia, Institute for Scientific Information, 1964.

3. *Centralization and Documentation*. Cambridge, Mass., Arthur D. Little, Inc., 1963, p. 54.
4. This was originally Dr. Ralph Shaw's suggestion.
5. How the citing author's testimony as checked by the searcher or someone else compares with the pertinence judgment by the scientist who submitted the search topic is an interesting topic for further study.
6. The earliest known use of this ratio was in: Kent, Allen; Madeline M. Berry; Fred U. Luehrs, Jr.; and J. W. Perry. "Machine Literature Searching. VIII. Operational Criteria for Designing Information Retrieval Systems," *American Documentation*, 6(2):95, April 1955. While we do not use their term "pertinency factor," we have followed their usage of W and M (although they used the letters in lower case) to avoid unnecessary difference. The relevance ratio used by Cleverdon and others, which is now called precision ratio, is the same ratio. (See Cleverdon, Cyril W. *Report on the Testing and Analysis of an Investigation into the Comparative Efficiency of Indexing Systems*. Cranfield, 1962, pp. 70-71. *Summary of Study Conference on Evaluation of Document Searching Systems and Procedures*. Washington, D. C., National Science Foundation, 1965, p. 10. Cleverdon, Cyril. "The Cranfield Hypotheses," *Library Quarterly*, 35(2):121, April 1965.)
7. The term relative recall ratio as used in this research was referred to as "Recall" by Montague. See Montague, Barbara A. "Testing, Comparison, and Evaluation of Recall, Relevance, and Cost of Coordinate Indexing with Links and Roles," in: *Parameters of Information Science*. Washington, D. C., American Documentation Institute, 1964, p. 260.
8. Kent, Berry, Luehrs, and Perry used the term "noise factor," which is the same measure as noise ratio. See Kent, *et. al.*, *op. cit.*, p. 95.
9. Swets used a 2×2 contingency table of pertinence and retrieval in which the two rows are "retrieved items" and "unretrieved items." (See Swets, John A. "Information Retrieval Systems," *Science*, 141 (3577):246, July 19, 1963.) Similar 2×2 contingency tables have been rather widely used. In our data we do not know what are the pertinent references in the indexes searched that have not been retrieved. On the other hand, statistical test applied to the kind of 2×2 contingency table as used by Swets would give results not meaningful to reference retrieval in documentation.
10. Tukey, John W. "Keeping Research in Contact with Literature: Citation Indices and Beyond," *Journal of Chemical Documentation*, 2(1):35, Jan. 1962, cf. p. 36. Cf. Garfield, E. and I. H. Sher. "New Factors in the Evaluation of Scientific Literature through Citation Indexing," *American Documentation*, 14(8):199, July 1963. Garfield, Eugene. "Citation Indexes in Sociological and Historical Research," *op. cit.*, p. 290. Garfield, Eugene. "'Science Citation Index'—A New Dimension in Indexing," *Science*, 144(3619):651, May 8, 1964. Tukey, John W. "A Citation Index for Statistics and Probability," *Bulletin de l'Institut International de Statistique*, 40(2):749, 1964.
11. Tukey, John W. "Keeping Research in Contact with the Literature: Citation Indices and Beyond," *op. cit.*, p. 35.
12. Garofano, Ralph. *A Graph Theoretic Analysis of Citation Index Structures*. Philadelphia, Drexel Institute of Technology, 1965. M. S. thesis. Cf. pp. 2 ff., 45 ff.
13. Kessler, M. M. *The M. I. T. Technical Information Project. I. System Description*. Cambridge, Mass., Massachusetts Institute of Technology, 1964, cf. pp. 9, 13. Kessler, M. M.; E. L. Ivie; and W. D. Mathews. "The M. I. T. Technical Information Project—A Prototype System," in: *Parameters of Information Science*. Washington, D. C., American Documentation Institute, 1964, pp. 264-265. Kessler, M. M. "The MIT Technical Information Project," *Physics Today*, 18(3):28-36, March 1966, cf. pp. 31-35. Brown, Sanborn C. "A Bibliographic Search by Computer," *Physics Today*, 19(5):59-64, May 1966, cf. pp. 60, 61, 64.
14. The point estimate was made by the formula, $T = C \cdot M$, where T is the estimated total of the cited references, C is the total number of citing references, and M is the mean of the number of cited references per citing reference in the

sample. The 95% lower confidence limit is calculated by the formula, $T - C(1.65) \cdot SE$, where SE is the standard error of the mean. The author is indebted to Dr. Joseph I. Naus for his assistance in statistics.

15. Cf. Yagi, Eri. "An Application of a Type of Matrix to Analyze Citations of Scientific Papers," *American Documentation*, 16(1): 11-12, Jan. 1965. Garofano, Ralph, *op. cit.*, cf. pp. 56, 77.
16. Cochran, William G. "Some Methods for Strengthening the Common χ^2 Tests," *Biometrics*, 10:443-446, 1954. Maxwell, A. E. *Analysing Qualitative Data*. London, Methuen, 1961, pp. 77-79.
17. Garfield, " 'Science Citation Index,' " *op. cit.*, p. 651.
18. Cf. Reisner, Phyllis. "Pre-test and Potential of a Machine-stored Patent Citation Index," in: Kochen, Manfred. *Some Problems in Information Science*. N. Y., Scarecrow, 1965, p. 164.



The Jordan Plastic Book Box: A New Concept in Library Storage and Circulation

ROBERT JORDAN, *Director of Media Services*
and

CATHERINE BLUMENFELD, *Acting Deputy Director*
Federal City College, Washington, D. C.

A substantial change is suggested in a key library activity—the shelving and storing of books, and optionally, in circulation—through the use of an individual box for each book. For thousands of years libraries have been forced to shelve books either in relative or fixed location. An integration or combination of fixed and relative location opens an entirely new range of possibilities affecting a substantial proportion of all library operating procedures. Few have imagined these potentialities in the past because the simple, but profoundly crucial base has not been possible with existing technology.

Introduction

WITH THE DEVELOPMENT of modern methods of extruding plastics, it becomes possible to house each book in a library in its own plastic box; the box and the book are both numbered with each book's distinctive book number. Each book is assigned to a fixed location in a specific plastic box, but the location of the box can be relative in relation to the shelf.

On a mass production basis, the boxes could be constructed in many sizes at low cost. Made of thin, semi-rigid, unbreakable plastic of the type common in children's toys or in drinking glasses, such boxes would be almost indestructible under ordinary library use.

Design specifications have been worked out to provide for the following: (1) keeping the spine of each book exactly at the front edge of the box; (2) keeping the boxes in perfect alignment relative to each other and to the shelf; (3) keeping the box and the adjacent boxes stable while the patron removes a book; and (4) permitting easy removal and insertion of either book or box. Maintenance of the shelf arrangement could be facilitated by stripes of color coding on the spine of the book and on the book number area of the box. (See illustration.)

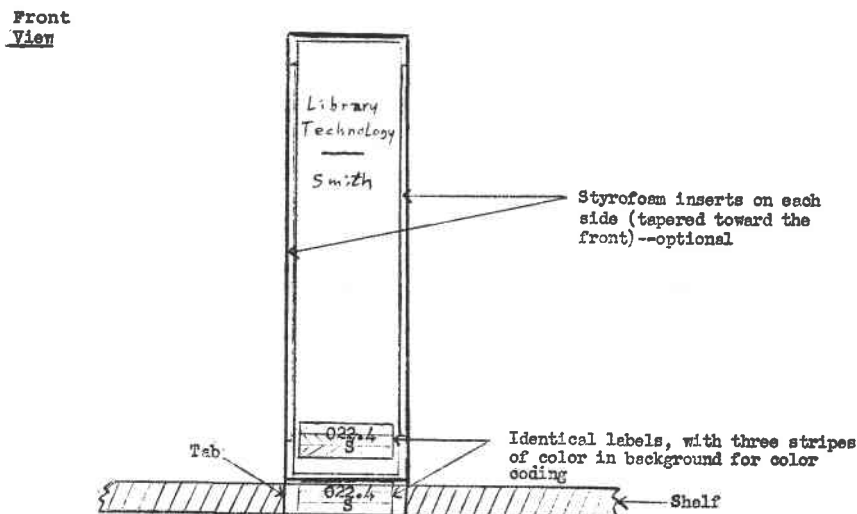
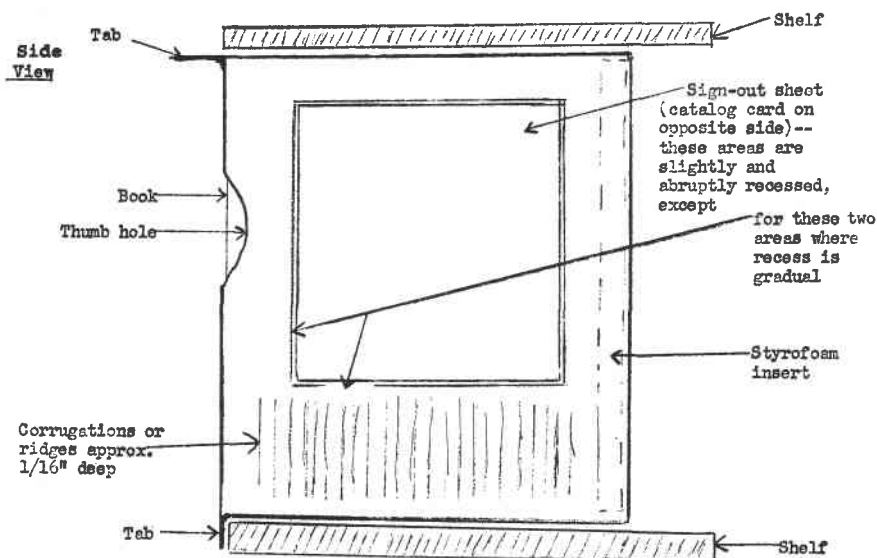
Advantages and Applications

Any library would be able to adopt the system, without any changes in existing shelving or equipment. Once the boxes are associated with particular books in the initial processing, the boxes would require no more attention or time than a book jacket or a shelf.

Pamphlets, periodicals, phono-records, and archives. At present there is no inexpensive and durable pamphlet, periodical, or archive container. The plastic book box would fill this need. The availability of

the box would also mean a significant saving in binding expense for the large proportion of serials that circulate infrequently.

The system could be readily adapted to the circulation of these materials, simply by adding a column on the sign-out sheet for the number of items borrowed from a box. It would be possible to check-in incoming serials on a form attached to the side of the box rather than at a centralized serial file.



Personal libraries and office collections. Since the boxes have a number of "self-operating" features, they would be appropriate in semi- or non-staffed situations. The downward-projecting tab at the bottom of each box could include the author and title, rather than the call number, so that each book could be easily matched with the proper box. Other than this, the books and boxes would require no further processing. The boxes would assist in keeping the collection intact and arranged—empty boxes on the shelf would stand as a constant and visible reminders of books out on loan.

Reference, rare Book, and other non-circulating collections. The boxes would be especially appropriate for this type of material, where a high degree of control and neatness is desired.

Thin books. Many libraries would like to find a more satisfactory way of storing the increasing proportion of small items which are too important for conventional pamphlet handling—items which are easily "lost" between adjacent larger books. The use of plastic book boxes offers a possible solution. Each plastic box can house several such items; one side of the plastic box would offer sufficient space for six or eight catalog cards, instead of the normal one per box. Likewise, boxes for thin materials can be shelved separately, not on separate shelves, but at the beginning of each section of the classification, so that these materials would not be separated from larger books on the same subject.

Protection of books. In plastic boxes, books would be protected from impact, air, dust, extremes of temperature, extremes of humidity or dryness, and water: thus they would last longer. To a degree, the boxes could substitute for the case binding of books; this could mean that a higher proportion of books could be left in paper binding, and a lower proportion would need rebinding in thick library bindings. Such practice would help compensate for the extra thickness of the boxes.

Self-mailer. With some modification, the boxes could be used as self-mailers.

Cleaning and housekeeping. With less wear and tear, there would be less debris from books to contend with. Dusting of the shelves would not be as tedious an operation and dusting the flat smooth-topped surfaces of the boxes would be less time-consuming than dusting the top edges of books.

Provision of boxes by publishers. Eventually, it might prove attractive to many publishers to ship their books in plastic boxes to library jobbers and retail bookstores. In addition to protecting the books in transit and on the bookdealers' shelves, the boxes and the various possibilities for their use would exert sales appeal as a distinctive "gimmick."

The often expensive and attractive book binding itself could be displayed, with printed material affixed to the box replacing the eye-catching qualities of the paper jacket. With boxes made of transparent plastic, it would be possible to combine a view of a portion of the cover of the book with colorful display on the box.

Storage libraries. The system would be useful for libraries circulating books at less than average intervals, because of the physical protection offered by the boxes for only a slight additional cost per book. A modification of the plastic book box, permitting the book to be stored on its spine in the box, would provide more compact storage. (Suggested by Melville J. Ruggles, Council on Library Resources.)

Automatic retrieval and shelving of books. The development of the plastic book box would make it feasible, for the first time, to install a comparatively simple, inexpensive mechanical "retriever and shelve," not dependent on special shelving, reinforced floors, or conveyor belts as in a vending machine operation, but operating much as a phonorecord is retrieved in a juke box. (Suggested by Joseph Popecki, Mid-Atlantic Associates, Washington, D.C.) In this scheme, the total cost for mechanizing the shelving and retrieval of books would be considerably less than one dollar per book. Such an installation could be economic in libraries with fairly low ratios of circulation to size of collection.

Handling of books to and from shelves facilitated. It would take less effort to remove or reshelve a book in a plastic box than to remove books of whatever binding or size, since adjacent books would always be in alignment. With air space at the top of each box, books would slide easily from their boxes, eliminating the common problem of books being too tightly pressed together, or too loosely arrayed.

Improved visibility of book numbers. Because of the exact positioning of the boxes and the flat surface on the front edge of each box on which the book number would appear, the book numbers would be easily visible and in the same relative position on each box, so that the row of book numbers on the shelves would form a straight line. Also, for the first time, it would be possible to have a visible book number for the following categories: oversize books shelved spine or fore edge down, thin books, books with highly curved spines, books with plastic or spiral bindings, and books whose spines should not be defaced because of the rarity or beauty of the book.

Providing a slot for packs of duplicate punched book cards. One system for fully-computerized, centralized circulation requires the use of pre-punched single circulation book cards. These cards must remain with the book at all times, but this is awkward as the cards are subject to loss in handling of the books within and outside the library. An adaptation of the plastic book box, with a built-in slot in the side of the box, would provide a "home" where the cards might be stored while the book was in circulation.

Providing a slot for duplicate copies of catalog cards. Some libraries could provide a new service to patrons—distribution of catalog cards for development of individual bibliographies and files of books read or to be read.

Entire stock always apparent. With a catalog card on one side of each box, it would become possible for all users of the library to browse at the shelves to discover the library holdings on a particular subject.

Furnishing complete bibliographic information at the exact point of patron need would mean that patrons would be able to use the library more efficiently and with greater satisfaction.

Semi-fixed clamps instead of book-ends. Most existing libraries use simple, instantly-movable, non-attached book-ends because of the constantly changing numbers of books on the shelves. Every time a book is removed or added to the shelf, the book-end must be adjusted; or, more often, the book-end is not re-adjusted, resulting in books being too loose and toppling over, or so tight that removal of one book will also pull out adjacent books. With the use of the plastic book box, a semi-fixed clamp can be used that will hold the book boxes exactly in place. The adjustment of the clamp will take two or three times as long as the adjustment of an ordinary book-end, but each clamp will need to be adjusted only $1/50$ or $1/100$ times as often.

Improvement in maintaining shelf arrangement. A box may be removed from a shelf leaving all other boxes undisturbed; since there would be only one gap visible on the shelf, it would be difficult to avoid returning the box to its proper place.

Improvement in neatness and appearance. With the boxes precisely positioned on the shelves, the appearance of the shelves would be improved. All books would stand vertically. The problem of books getting out of alignment and toppling over or disappearing between the shelves would be solved.

Keeping the boxes in proper arrangement and preventing the internal "loss" of books misshelving (or hiding by eager patrons) would be further facilitated by color coding on the box. A swift glance at each shelf would point out books more than one digit out of place. Thus, it would become practical in most libraries to check the integrity of the entire shelf arrangement every week, or even daily.

Patron "do-it-yourself" (for small and medium sized libraries). Recent experience in some public libraries has shown that both children and adults enjoy shelving their own returned books. In college libraries, just as it is a valuable experience for a student to locate books of interest in the library, it is likewise educationally valid to reinforce the student's knowledge about the arrangement of materials in the library by the process of reshelving. Empty boxes of the right size stand out on the shelf, and the matching of book to box is a much simpler process than finding a particular relative location.

Shifting. There would never be any variation in required shelf space because of books in circulation; thus, it would be a simple matter to judge the required amount of shelf space when shifting books from one location to another.

Inventory. Taking of inventory would be far more efficient. Scanning a shelf for empty boxes would take only a fraction of a second for each shelf.

Elimination of shelves. A slight modification would permit the use of the Jordan plastic book box without the need for shelves. By covering

the back of the box and the surface to be used with a material such as "Velcro," use could be made of pillars, stairwells, and many other "odd-shaped" areas for the storage of books in an efficient and attractive manner.

Elimination of centralized circulation records. By affixing a sign-out sheet to the side of each box, it is possible to eliminate entirely the centralized circulation area, along with the clerical staff and detailed record-keeping traditionally associated with this activity. Circulation records would be kept at the barest possible minimum, with no staff time involved; yet full information would be readily obtainable when needed to provide the user with information as to location, including uses within the library.

Circulation statistics. Even without centralized circulation records, it would still be possible to maintain fairly reliable and detailed circulation statistics, using sampling techniques, including, for the first time, the within-library circulation that in many libraries represents the majority of book utilization, but is never recorded or summarized.

Reserves. Patron reservations on books in circulation can be made simply by adding the potential borrower's name to the record on the book.

Weeding. The amount of time required for weeding would be reduced, because the number of times that each book had been circulated would be quickly apparent.

Supplementing with an exchange charging system. For libraries with a fairly stable clientele and able to operate on an honor system (many special, college, and school libraries), no further circulation control would be necessary. For libraries unable to institute an honor system, or unable to educate all patrons to use the sign-out sheets consistently, positive control could be achieved by adding a simple exchange type of charging system, such as the Westminster system, which involves the use of tokens deposited in exchange for books borrowed, or the "Jordan Book Check Charging System," which involves the deposit of multiple copies of individual "book checks" for books borrowed.

Disadvantages and problems

Possibly the most serious disadvantage would be the extra shelf space required by the additional width of the boxes. This should be partially offset by a reduction in the needed amount of space held aside for shifting; instead of the usual 25% of shelf space, it should be possible to get along with half as much because of the partial approach to fixed location. The boxes, themselves, would be made of very thin material. All in all, it is doubtful that additional net square feet of stack space would exceed 10%. Since the cost of additional stack and building space is on the order of 10 to 40 cents per book per year, this means that 10% of the books would cost an additional 10 to 40 cents per year to house, or an average of 1 to 4 cents per book additional building cost spread over the

entire collection. Only those libraries unable to add additional stack space and so crowded as to depend on books in circulation to release shelf space would be seriously disadvantaged.

Despite the fact that it can be demonstrated that the savings in the cost of many library procedures would outweigh the cost for the extra stack space required, there would undoubtedly be resistance to use of the boxes by libraries subject to unusually severe pressure to house a maximum number of titles in any given space. In such a library, even if 10% additional stack space were specifically provided to accommodate boxes, there would undoubtedly be pressure to acquire additional titles rather than boxes.

Summary

The existing universal method of storing books—side by side on shelves—is so simple and basic that little thought has been given to any drastic change. We have unconsciously assumed that many of the disadvantages were inevitable, e.g., messy shelves, high cost of inventory, etc. The book box makes possible the elimination of many of these disadvantages, but, in turn, introduces some of its own. The new system should be judged on its intrinsic merits and the net gain for a particular library, and not on any preconceived ideas as to how a library *must* operate.

BIBLIOGRAPHIC HISTORY

The first version of this conception appeared as Appendix C of a paper on "The Library-College" delivered at the School of Library Science at Syracuse University in November, 1964. A series of six subsequent mimeographed versions, all with the title, "The Jordan Plastic Book Box," have appeared since then and have been circulated to perhaps 100 different individuals. The third of these editions, dated December 18, 1964, was the first to include the application of the plastic book box in "Automated Retrieval and Shelving of Books."

The fourth revision, dated March 15, 1965, was read to the College and University Section of the Catholic Library Association in Philadelphia, on April 23, 1965. A one-paragraph summary of this address, including reference to use of the book box in "automated storage and retrieval" was included in *LC Information Bulletin*, 24:17, April 26, 1965, p. 202, and reprinted in the *Antiquarian Bookman*, May 24, 1965, p. 2243. The last mimeograph edition is dated May 19, 1966.

Additional summaries, all with the title, "The Jordan Plastic Book Box," appeared in:

Library-College Newsletter, 1, May 1965, p. 7.

Catholic Library World, September 1965, p. 70-3.

The Library-College. Philadelphia, The Drexel Press, 1966, p. 243-4.

Library-College Newsletter, 15, May/June 1967, p. 18.

The last reference cited above reports that, "Unknown to me, Remington Rand has evidently been working along similar lines, for how long I don't know, and is just about to announce their 'Randtriever' that carries out the general concept that I describe on page 7-8 of my article on the 'Jordan Plastic Book Box,' accepted by Esther Piercy for publication in LR&TS almost two years ago. . . . Remington Rand is currently constructing a large new building at their plant at Tonawanda, New York, designed specifically as a 'Randtriever'—an entirely automated stack for the physical shelving and retrieval of books."

RTSD in an Age of Change*

MARGARET C. BROWN, *Chief
Processing Division
Free Library of Philadelphia
Philadelphia, Pennsylvania*

IT WAS BACK IN JANUARY, when the agenda for this meeting was being prepared, that the President indicated that he wanted the Vice-President to appear on the program. I suggested that maybe I could talk about what makes RTSD run. I thought surely I would know by June, and once I find out how something works—whether it is a new can opener or a performance budget—I can't wait to tell everyone else, always assuming of course an interest on their part that matches my own. Only, here it is June and I really don't know how RTSD runs. I feel sympathy for the child who awoke one morning unaware that the town clock had gotten out of order during the night. He lay in bed and counted as the clock struck 10, 11, 12, 13, 14, 15. At this point he jumped out of bed and ran through the house, calling to his family, "Get up! Get up! It's later than it has ever been before!" And for me too, it's later than it's ever been before.

One of our former distinguished presidents of the Division, sympathizing with me because of my newly acquired responsibilities, said to me last Winter at Miami Beach, "You know, this job bears no resemblance to the one I had a few years ago." What prompted that remark? In what ways exactly has RTSD changed in the last few years? For one thing, I don't believe the past-president who addressed me was expected to say something profound one minute after she was handed the gavel. But there are more important ways in which we have changed. I would like to speak of two—changes in what we are trying to do and changes in the way we are trying to do it. These two are not easy to separate, but I am going to try for the purpose of this comment. I would first like to speak about what we are trying to do.

We do get tired of hearing about the growing complexity of our world—our personal world, our professional world, our political world—but we cannot escape the fact that almost everything about our lives is becoming increasingly complex. What is the nature of this increasing complexity as it is reflected in this particular segment of our professional organization?

Well, for one thing, in the goals we are setting for ourselves. In this connection I would speak of "Goals for Action,"¹ a statement accepted by the RTSD Board of Directors at the Miami Beach meeting.

* Speech given at the Membership Meeting of Resources and Technical Services Division in Kansas City, June 27, 1968.

I commend this to you. If you do not think this statement presents a more complex program, I think you would have to admit that it does present a more ambitious and comprehensive program. The Division, specifically the Board of Directors, has the responsibility for keeping these stated goals before the membership and for determining that the programs and plans of the sections and committees are in harmony with these goals. This sounds restraining. The "Goals for Action" statement also serves as a reminder of action that is needed, of progress that should be undertaken, and of areas that are neglected.

Our programs are more ambitious in scope and at the same time represent a broader range of activities than ever in our history. They demand greater sophistication on the part of our officers and committee members, not only skill and knowledge about specific aspects of our professional lives, but experience in accomplishing concrete ends through the democratic process.

Also our projects today often take money. It is becoming increasingly difficult to accomplish our desired ends with the voluntary contributions of our members. This is so, not because individuals are any less willing to give of their time, but rather because the scale of our operations is such that they no longer can be carried out by voluntary contributions of time and energy. Nor is the money available from the ALA budget sufficient to subsidize adequately some of our projects. Committee members may some day soon have to be fund-raisers as well as idea men.

Not only are our programs broader in scope and more comprehensive in design, but we seem more aware of the impact of our interests on other groups within ALA and outside ALA. We have become more specialized in our interests, more departmentalized in our organization—a divisive influence—but at the same time our profession, as our society, has become more interdependent, more interrelated. One of the most important functions of the Division is to help us maintain our professional perspective while at the same time helping us to cope with the nitty-gritty problems which must be solved if we are to progress from one day to the next. Never before has it seemed quite so important to study both the trees and the forest.

In January of this year, RTSD and its sections had a total of 54 committees. Since January others have been added; a few have been dismissed because their assignments had been completed, and, marvelous to relate, some are amalgamating. In 1967 AASL's School Library Technical Services Committee was disbanded and its interests and talents incorporated into RTSD's renamed Centralized Processing Committee. Today the CCS membership voted to combine two CCS committees with illustrious histories, the Subject Headings Committee and the Classification Committee. The new committee will be the Subject Analysis and Organization of Library Materials Committee.

This kind of coordination and cooperation I heartily endorse as I do also cooperation at the Division level which seems to have gained new momentum this year. Tentative plans for Atlantic City suggest four-

division sponsorship of a major program of general interest. Someday maybe we can do away with general meetings. (I favor that too. I think general meetings are obsolete.)

There are examples of co-sponsorship in our pre-conferences in Atlantic City and one of interest to this group is a pre-conference on subject analysis of library materials co-sponsored by the Cataloging and Classification Section and Information Science and Automation Division. Another, sponsored by one of our important joint committees composed of representatives of the American Book Publishers Council and the Resources and Technical Services Division, will have as its topic the acquisition of library materials.

I do not mean to infer that cooperation of this kind is new to this group. Cooperation is in our tradition. But I do sense a new awareness of the relevance of what we are doing to the operations of other organizations and the need to know what others are doing in areas of interest allied to our own. In some instances there is a frank admission that, if we don't let others know what we believe and what we want, we have a good chance of having decisions in critical areas made for us, decisions we may not like but will have to live with. To quote from our Goals Award application, a portion of a paragraph speaking of the need for a conference on network communications: "If the library community does not exert leadership, American libraries may, by default, be in the position of having to accept decisions which are not in harmony with total goals of library service for the nation, or just as serious, decisions which represent partial solutions, likely to prove incompatible with the total system which must inevitably be designed for comprehensive library service."²

Today we have official representatives with such committees and organizations as the National Microfilm Association, two sectional committees of the United States of America Standards Institute, the United States Book Exchange, and the Technical Services Section of the Canadian Library Association. Our interest in matters of international concern is demonstrated by the recent appointment of an *ad hoc* committee to explore ways in which RTSD can participate to the fullest at this level.

One last quality of our current programs and activities is perhaps less obvious than these which have been mentioned and of less significance at the moment, although it may not always be so. We may be tired of hearing about the complexity of our world and the interrelatedness of our world; we may also be weary of having its frantic nature called to our attention.

No large organization is geared to quick action. Therein lies its salvation as well as a source of some of its difficulties. Today some of our important decisions are made under pressure of time. One of the most significant decisions at Miami Beach—determining the official position ALA would assume in regard to the universal numbering system as proposed at that time—was developed by a committee that all but worked around the clock. Whatever the outcome of this issue, the rec-

ommendations of that committee were needed in Miami Beach, not six months or even a month later.

None of us favors thoughtless and hasty action. The deliberation of the Inter-divisional Committee on the Universal Numbering System was neither thoughtless nor hasty. I only suggest that the timeliness of actions and programs may be more strategically important in the future than it has been in the past.

This is an area in which the policy and research committees and RTSD's Planning Committee serve such an important function. As our organization has grown in size and complexity, our executive committees and RTSD's Board of Directors have become preoccupied with housekeeping duties, matters which require official action, policies which have to be debated. Consequently, they can devote less time to initiating and developing the programs which are their whole reason for being. The Sections' policy and research committees and the RTSD Planning Committee were created to do just this—initiate, deliberate, develop and recommend. Part of determining what should be done is determining what should not be done. When I was chairman of the Cataloging Policy and Research Committee, we were accustomed then, as now, to holding a two-day meeting at the Library of Congress. On one such occasion we met for lunch with the administrative officers of the Library. The Librarian of Congress, obviously not in the interests of making idle conversation, turned to me and said, "And what important matters has your committee been discussing this morning?" I was saved from an immediate answer when he added, "Of course I didn't mean to imply that you discussed unimportant matters." But we did, of course, because it sometimes took considerable discussion to distinguish the important from the unimportant. But this is an essential aspect of the work of these committees. We have one or two studies in process now whose time may be past and whose findings, when we get them, may be irrelevant. It will be even more important in the future to avoid a waste of time and money on learning the answers to questions which are no longer of vital interest to the profession.

Just as *what* we aim to do changes in aspect over the years, so also does the organization we use to do it with. Sometimes this means formal organizational changes. Some of us can remember fourth and fifth activity committees whose recommendations resulted in basic and conspicuous changes in our professional organization. But short of designing a new model, we can learn to use the one we have more efficiently, and this we have been doing. Ours is in better working condition than it has ever been thanks to an office at ALA Headquarters that is a model of efficient management. Each year for the past seven years you have heard the retiring president express his gratitude to our Executive Secretary and more recently—since she has had one—to *her* secretary. The key to our progress has been Elizabeth Rodell's office. Such fine managerial tools as up-dated manuals for conducting our business emanate from her office, not to mention frequent reminders of some cogs

that have slipped or are about to slip. But most of all what we appreciate is Elizabeth's sound judgment and good sense.

Essential to the smooth running of any organization—almost the grease for the gears—is good communication. Our own journal with its high editorial standard has provided an essential record of the Division's work over the years. How, within budget limitations, to provide more frequent and up-to-date reporting for committee members and others interested in committee matters, remains an unanswered question at this time, but one we are attempting to resolve. Meanwhile the carbon copy chain and reports from the Executive Secretary's desk help to fill the gap.

The need for experienced committee members and a membership better informed about committee work has lead to two innovations within the past year: the introduction of the intern concept for committee appointments and an experiment with the observer program or open-committee meeting idea. We in RTSD have had too little experience working with either of these concepts to know how they can be used to greatest advantage. Both present some practical administrative problems but perhaps not of the order once imagined. The Planning Committee this year, at Helen Welch Tuttle's suggestion, held an open meeting and invited anyone wishing to have a project or problem explored through the RTSD program to come to the Planning Committee with his suggestion and a proposal for carrying it out. It was assumed that the individual proposing the problem would be available to assist in its study. To our knowledge this is the first invitation of this kind to be publicized through library periodicals.

Clarence H. Faust, writing in the *Saturday Review* last March 30, said, "It is true that institutions change even more slowly than individuals. Spanning the generations, their commitments and policies do not so naturally and quickly expire. It can be convincingly argued, I feel as I grow older, that the rapid succession of generations is a wise provision for improving the human condition."³

The rapid succession of generations is a comforting reality. The succession is seemingly increasingly rapid, if sometimes less comforting. In the end, it is not formal organizational changes which make the difference, but behavioral changes—changes in attitudes, loyalties, feelings, and beliefs of organization members. And finally so it is with RTSD membership—the interest, enthusiasm, and concern of each generation—therein is to be found the true explanation of how and why RTSD functions as it does. Our obligation is to see that we have the kind of organization which provides good growing conditions for each succeeding generation.

REFERENCES

1. "RTSD: Program and Objectives." *Library Resources & Technical Services*, 12: 218-220. Spring, 1968.
2. "Conference on Interlibrary Cooperation through Network Communications." January 26, 1968, p. 2 (unpublished).
3. Faust, Clarence H. "The Care and Feeding of Institutions." *Saturday Review*, March 30, 1968, p. 16.

Paul S. Dunkin

RUTH FRENCH CARNOVSKY
*Associate Professor and Dean of Students
Graduate Library School
University of Chicago
Chicago, Illinois*



The Award Being Presented to Dr. Dunkin by
Marion L. Kesselring, Chairman of the Citation
Committee

The Margaret Mann Citation in Cataloging and Classification is awarded in 1968 to Paul S. Dunkin in recognition of his contribution to the development of the philosophy and techniques of organizing recorded human knowledge. An innovative practitioner, stimulating teacher, chronicler and critic, author and editor, indefatigable committeeman and elder statesman with a refreshingly young perspective, Dr. Dunkin has earned the respect of the entire library profession for his modestly-worn erudition, grace and wit.

PAUL DUNKIN's personal characteristics and professional accomplishments may be inferred from the above statement that accompanied the Margaret Mann Citation when it was presented to him at the ALA Conference in Kansas City. He came into the library profession from the field of classics. In fact, he attended the library school at the University of Illinois during the period in which he was writing his Ph.D. thesis in Classics at that university, resulting in his receiving the B.S.L.S. in 1935 and the Ph.D. in Classics in 1937. His dissertation,

Post-Aristophanic Comedy, was later published by the University of Illinois. He had previously taken the A.B. at DePauw, having been elected to Phi Beta Kappa. Through his years of study and teaching assistantships in Classics at Illinois, Paul Dunkin became closely associated with Professor William A. Oldfather who proved to have a decisive influence on his career. Although head of the Classics Department there, Professor Oldfather maintained a keen interest in librarianship; and it was at his urging that Paul Dunkin went to library school, an act for which American librarianship is indeed indebted to Professor Oldfather.

As has frequently proved to be the case with others, Paul Dunkin's training in classics led to an interest in cataloging and, quite naturally, to an interest in the cataloging of rare books. In 1937 he became a cataloger at the Folger Shakespeare Library and served there until 1959 as senior cataloger, then as chief of technical services. During succeeding summers he returned to Illinois to teach in the library school there, and in 1959 he joined the faculty of the Rutgers Graduate School of Library Service where he is professor.

It is noteworthy that, although he excelled in a field that often inspires specialization, he never became a narrow specialist. In 1951 his monograph *How to Catalog a Rare Book* was published by ALA, but thereafter he turned his talents to other kinds of cataloging as well.

For years he has been a prolific author with numerous articles in library and bibliographical periodicals. He contributed a paper to *Toward a Better Cataloging Code*, the Chicago Graduate Library School Conference of 1956, and during the ensuing years wrote frequently on the new cataloging code. When Lubetzky's unfinished draft of the rules was published in 1960 prior to the Institute on Catalog Code Revision at McGill, it contained Paul Dunkin's running commentary. In October 1961 he went to Paris as a participant in the International Conference on Cataloguing Principles sponsored by I.F.L.A., having contributed to the conference the working paper on the cataloging of serial publications.

Paul Dunkin has always been particularly attracted by editorial pursuits and confesses to a youthful ambition to run a small-town newspaper. The profession has profited greatly from this editorial interest. He served as editor of *D. C. Libraries* from 1953 to 1955, and assistant editor (cataloging and classification) of *Library Resources and Technical Services* from 1957 to 1967. In this capacity his annual accounts of the year in cataloging made the hard work of past months sometimes sound glamorous and other times slightly ridiculous, but always interesting. In 1967 he succeeded the late Esther Piercy as editor of this periodical.

The citation called him an "indefatigable committeeman." There is ample justification for this not only in the offices he held in the District of Columbia Library Association, but in his service on the ALA Council, on the Steering Committee of the Catalog Code Revision Committee,

on the Cataloging Policy and Research Committee, as chairman of the Cataloging and Classification Section, and subsequently as president of the Resources and Technical Services Division. Yet he could never be called an organization man. His wry sense of humor always cuts through red tape and demolishes any pompous tendencies of board and committee routines. In fact, almost every area of librarianship has been subjected to his kindly satire, most recently in his column "Viewpoint," appearing each month in the *Library Journal* during 1967. With all his devoted effort, critical perspective, and demanding scholarship, he turns his humor as relentlessly upon himself as upon any library matter; and through the years he has stimulated a renewed interest for the field of cataloging and has won everyone's affection for himself.

Seldom has the Margaret Mann Citation been awarded to anyone who has given more time and effort to the Cataloging and Classification Section. That in itself is sufficient, but beyond it, as worthily mentioned in the citation, is his "grace and wit," and his unusual charm, not to speak of the high quality of scholarship which he has lent to the discipline of cataloging.



RTSD Annual Reports, 1967/1968

President's Report

DAVID C. WEBER, *President*

The past year has seen the division continue to be a strong vital element in the programs of the American Library Association. Its membership is now over 9,000 and thus includes in its ranks nearly one-third of the entire ALA membership. The major strength of the division continues to be the four sections with individual responsibility for acquisitions, cataloging and classification, reproduction of library materials, and serials. There are, in addition, thirty-four section committees, eleven substantive division committees, five division housekeeping committees, five division committees jointly with another division or organization, six discussion groups, seven representatives to other organizations, and thirty regional groups.

It has been a year marked by progress on many fronts. It has perhaps been notable for the drafting with ISAD and RSD of the "Proposal for a Conference on Interlibrary Cooperation through Network Communication," the approval of the MARC II format as an ALA standard for the communication of bibliographic data in machine-readable form, and the increased contribution to the program of the division made by the Planning Committee. The division offers its members and others interested in its activities a journal which continues to make a very special contribution to the profession; the *Report* from the Office of the Executive Secretary continues to be of significant value to those participating in its various committee activities. But all the sections and most committees have been vigorously active, and the summary of achievements which follows is merely the superficial evidence of the broad contributions made by the division to the betterment of libraries.

The American Book Publishers Council/RTSD Joint Committee (Carl Jackson, Chairman) has continued its extraordinarily important work in exploring mutual interests. The question of how to test the durability of paper received attention. The discussion of the LTP Binding Study Phase II continued; it was pointed out that very few publishers actually test the binding they receive and for which they pay. And it sent out a questionnaire on permanent book papers.

The Book Catalogs Committee (Ritvars Bregzis, Chairman) is continuing its analysis of the 1967-68 book catalog survey and has commenced work with the RSD Catalog Use Committee.

The Bookbinding Committee (Stephen Ford, Chairman) has promoted adoption of the Provisional Performance Standard for Binding used in libraries: It has received consideration by the United States of America Standards Institute Z39 Subcommittee 16; the Library Binding Institute has accepted the proposed durability and workmanship standards but not the openability standards; at this point the Book Manufacturers Institute has not approved the standards but has established a committee to give them

further review. The Bookbinding Committee is considering the industry specifications for rebinding which may follow upon and support the Performance Standards. The committee has discussed permanence of library materials and has agreed that for the immediate future it will confine its interests to the permanence of books and printed materials and not extend its interest to the permanence of other forms of library materials. It is giving its major support to the work on permanence now being done at the Library of Congress. Its work with the Library Binding Institute on a standardized routing slip for library rebinding has been reactivated.

The Centralized Processing Committee (Mrs. Brigitte L. Kenney, Chairman) has assumed responsibility for school libraries and thus has absorbed the responsibilities of the former School Library Technical Services Committee. The committee sponsored an article by Lawrence Leonard which is to be published in *Library Resources & Technical Services* and sponsored a bibliography on centralized processing by Mr. Leonard which is to be published in the University of Illinois Graduate Library School *Occasional Papers*. It also has worked to update a list of processing centers. At present the committee is developing an outline for a study proposal to assess factors influencing the operation of processing centers.

At the request of the Board of Directors, Barbara Westby continues her work on the important revised edition of the "Directory of Commercial Cataloging and Processing Services," and the manuscript should be published in the course of the next fiscal year. The tremendous expansion in this field and the great sensitivity and complexity in giving accurate assessments of services had made this a monumental task but one that will be of substantial service to the profession.

The Organization Committee (Wesley Simonton, Chairman) recommended that RTSD Councilors be given voting privileges on the Board of Directors. The committee also endorsed the one-year pattern for the Council of Regional Group officers of vice-chairman and past chairman. These proposals were adopted by the Board of Directors and approved by the membership in Kansas City.

The proposal to create the "Esther J. Piercy Award" was approved by ALA for the purpose of recognizing the contribution to librarianship in the field of the technical services by younger members of the profession. The award shall take the form of a citation given by RTSD at the annual membership and business meeting.

The Planning Committee (Helen M. Welch, Chairman) has promoted broader division activities through several of its programs. Notable among these was the statement *RTSD Goals for Action* which was adopted as division policy by the Board of Directors with the provision that it receive biennial review. This articulation of division goals was given wide publicity and should act as a major stimulus in all of the division committees and sections as well as the Regional Groups.

The committee proposed and received RTSD, LED, and ALA Executive Board approval for a Traveling Fellowship for technical processes faculty in graduate library schools in the United States and Canada; a joint RTSD-LED committee under the chairmanship of F. Bernice Field has been established to promote and to administer the grant program.

The Planning Committee, recognizing the very considerable international library activities which relate to division responsibilities, recommended

creation of an ad hoc committee of three members to recommend ways in which these interests could be served. This committee has been established under Mrs. Marietta D. Shepard. An RTSD Legislation Subcommittee to replace its single representative to the ALA Legislation Committee was also established.

Finally, the Planning Committee gave considerable thought to the importance of standardizing technical services statistics and forms for processing and determined the implications for the ALA *Glossary of Library Terms*; one result has been the consideration by the Library Technology Project of a program in standardized forms, and another result is creation of a subcommittee of the ALA Editorial Committee to explore the possibility of revising the 1943 *Glossary*.

The Public Documents Interdivisional Committee with RSD (Joseph Rosenthal, Chairman) received RTSD approval for its resolution asking for resumption of full distribution of federal report literature to the regional depository centers.

The Resources Committee (Norman D. Stevens, Chairman) has continued assessment of its definition of responsibility and has given considerable thought to the needs for a national communications network to improve accessibility of resources. The National Union Catalog Subcommittee (Gordon R. Williams, Chairman) continues to be of immense value to libraries of the country through its program to publish the retrospective *National Union Catalog*. The Micropublishing Projects Subcommittee (Allen B. Veaner, Chairman) has now developed its program to the point where the Library Technology Program is underwriting some costs incurred in making technical reviews of micropublications which will then be published in *Choice*; the technical aspects will be given expert review and the substantive content will be reviewed through a check list of eight bibliographic and eleven administrative points developed by this subcommittee.

The Technical Services Cost Ratio Committee (Helen M. Welch, Chairman) continued to refine its definition of the TSCOR cost ratio, and a revised form for collecting the needed figures and calculating the TSCOR is being tested.

The Technical Services Standards Committee (Marian Sanner, Chairman) is embarking on its assignment with an examination of available standards, a review of the draft "Standards for School Media Programs," and a proposal for technical services standards to the Association of State Libraries Standards Revision Committee.

The Universal Numbering System Interdivisional Committee with ISAD (C. Donald Cook, Chairman) has carried the major responsibility of reviewing commercial proposals for extending the British numbering system to American publishers. The committee is working with the Library of Congress in seeking a solution to this complex need, will continue to advise on and monitor progress, and will urge the National Libraries Task Force for Automation and Other Cooperative Services to seek funds and staff to establish specific criteria for such a system and then take action to develop such a scheme.

The Board of Directors handled a heavy load of business with its usual dispatch; and the membership approved of a change so that the division's ALA Councilors are now voting members of the Board. The division's program meeting at the Kansas City Conference concerned the National Serials Data Program and commercially produced machine-readable serial data

bases. The membership and business meeting included seven reports, bylaws changes, and a paper by incoming President Margaret C. Brown on "How RTSD Achieves."

It remains abundantly clear that the division has exceedingly wide membership participation, and an officer can only stand in awe of the many efforts and accomplishments of its committees and sections and Executive Secretary, Mrs. Elizabeth Rodell. The world of RTSD is developing as never before.

Acquisitions Section Report

FELIX REICHMANN, *Chairman*

The section had a program meeting at the Kansas City Conference with the title "Tools of Our Craft," held on June 26, 1968. The speakers were as follows: Avis Zebker, "The Acquisitions Librarian Uses Bibliographical Tools"; Richard Abel, "Use of American Bibliographical Tools in Selecting Standing Orders for Libraries"; and Daniel Melcher, "Publication of American Bibliographical Tools." This meeting was cosponsored by the Library Services Committee of ACRL.

The Acquisitions Section, in its turn, cosponsored the program meeting of the Library Services Committee, chaired by Dr. Katherine M. Stokes. The title of the meeting was "The Bibliographer in the Academic Library." This meeting was held on June 24, 1968, and the speaker was Robert Haro. The Reactor Panel members were as follows: Helen M. Welch, Acquisition Librarian, University of Illinois, Urbana; Alan R. Taylor, Librarian for African Studies, Indiana University, Bloomington; William H. Kurth, Associate Librarian, Washington University Libraries, St. Louis, Moderator.

The results of the election were as follows:

Vice-chairman and Chairman-elect: Mrs. Connie R. Dunlap, University of Michigan Library.

Secretary (for the term 1968-71): Mrs. Ruth Graff, Oberlin College Library.

Member-at-large (for the term 1968-71): Thomas M. Bogie, Dallas Public Library.

Reprinting Committee

The revision of the pamphlet "Lending to Reprinters" has been completed. Copies were distributed at the RTSD booth in Kansas City. The committee will meet with a number of distinguished reprint publishers to ascertain their views with regard to production, prices, etc. The committee also plans to invite, for the next midwinter conference, about a score of acquisitions and reference librarians to discuss problems of the reprint trade. (See Appendix)

Library Materials Price Index Committee

The committee will concentrate on (a) increasing substantive coverage by price indexes, (b) playing a more active role in developing grant support and sources of implementation. The committee continued to work closely with persons representing libraries, publishers, and the federal government. A

new price index, based on *Books in Print*, was presented as a feasibility study by Marilyn Satterlee, Acquisitions Section, University of Illinois. The committee asked Miss Satterlee to continue her work for future evaluation. The microfilm index will be recommended for publication in *LRTS*.

The Executive Boards of the Acquisitions Section and the Resources and Technical Services Division approved that the Committee follow required procedures to join in the work of USASI Z-39 as a subcommittee.

Book Dealer-Library Relations Committee

The committee agreed to have book dealer representatives at the meetings. However, they would not be official members, but only on an invitation basis.

The committee notes with deep regret that libraries are still the target of dealers who do not keep scrupulously to their promises. The committee has tried to warn all libraries which are in danger of being harmed.

New Joint Committee, RTSD and LED, for Acquisitions Textbook Proposal

A joint committee with LED was appointed to write a proposal for the development of a textbook on library acquisitions work.

The Chairman of the new committee is Mrs. Eleanor Morrissey, Joint University Libraries, Nashville, Tennessee. The committee members are as follows: A. Elizabeth Crosby, Cornell University Libraries; Helen Hagan, Wilmington College, N. C.; Eileen Noonan, Rosary College, River Forest, Illinois; Maurice Tauber, School of Library Service, Columbia University; Morris Toll, Free Library of Philadelphia.

Bylaws Committee

The change in the bylaws recommended by the committee has been approved, and the new wording in Article VIII, Executive Committee Section 1—Composition, is now as follows:

The Executive Committee consists of the officers of the Section, the immediate past chairman of the Section, and five (5) members at large. . . .

Joint Committee to Revise the List of International Subscription Agents

The text of the list of international subscription agencies is finished and almost completely edited. The new edition will have 220 entries, 85 of which are new ones. The older 1963 edition had 186 entries, but 51 have been dropped. These agents will be listed in an appendix with reasons for their deletion.

Geographical coverage has been broadened, especially for Africa and Latin America, and 13 new countries have been added. The introductory material has been prepared and the first draft of the index is being edited.

Mrs. Roma Gregory, the Chairman, is discussing with the ALA Editorial Committee some editorial problems.

Intersectional Committee on U. S. Congresses and Conferences without Fixed Headquarters

The committee has finished its work and has been disbanded.

Ad Hoc Committee on Book Disposal

Ad Hoc Committee on Disposal of Surplus Library Materials

No important news reported.

APPENDIX

LENDING TO REPRINTERS: a Policy Statement of the Reprinting Committee—

REPRINTING IS NOW A MAJOR PUBLISHING INDUSTRY. Libraries have reason to be grateful for the growth of the industry and the publications which have resulted from the industry's efforts. A large part of the basic product for the reprinting of scholarly works depends upon the properties held by libraries. These are loaned to many in the reprinting industry.

The Reprinting Committee, by a sampling of policies of 72 major libraries in the United States and Canada, has attempted to determine what might be a desirable general policy for libraries to follow in lending to reprinters. The libraries responding have lent as few as one title to titles in the thousands. Most of the libraries have not yet felt the need to establish a formal lending policy or put into effect detailed procedures. A few, who work most closely with reprinters, do have established systems.

The lending arrangements of some libraries were found to be much advanced in policies and in lending records. Among these institutions are Columbia University Libraries and the Research Libraries of The New York Public Library.

The Committee considered the many factors involved in lending for reprinting and arrived at some observations for discussion. The Committee believes that lending of materials, when they will not be damaged in the process of reprinting, or when they do not have a uniqueness which libraries wish to preserve, should be within the spirit of sharing with other libraries through reprinting programs. It believes, however, that the lending library must first determine whether it wishes to issue such reprints under its own name. If it decides to lend, it should consider the request of any legitimate reprint publisher of good reputation, unless there are advantages in granting privileged contracts.

The Committee is mindful that libraries, with great ingenuity and at vast cost in acquisition, preparation, housing, and protection of publications, have rights which are absolute. They should be free to refuse to lend if they wish to do so. Should they wish to share their holdings with others, they have reason to expect and insist upon conditions: that fees be paid for the privilege of commercial exploitation; that the fees cover the cost of the lending arrangements; that adequate protection be afforded the originals; that credit be given to the lending institution within the statement of the reprint edition and in the advertising of titles; that a suitable number of reprints be given to the lender—or cash or credit if the reprints are not wanted; that the reprinter reissue the publication as in its original printed form, unless special and justified exceptions are desirable; and that the paper of the reprint be of good quality.

In their borrowing for reprinting, some publishers have not been entirely frank with libraries. There has been an indication that a book borrowed through interlibrary loan may provide the basis for a reprint edition. In one known instance a reprinter sought the same book from three libraries at the same time on interlibrary loan without indicating his intention to reprint. This concealment of intention as to the reprint use of library materials should not be considered acceptable practice. Lending to such reprinters might be a matter which libraries would wish to deliberate. Libraries should always be

free to deal with those in whom they have confidence and with whom they can reach the most satisfactory understanding.

The philosophy behind lending materials for edition reprinting and microfilm publication, it seems reasonable that a similar fee should be charged. Since the economics of these two forms of publication are different. Since it is impossible to know or estimate how many potential copies would be produced by microfilm publication, it seems reasonable that a similar fee should be charged for both forms of reproduction. While no significant income should be sought by the lending library, it is felt that suitable fees to recover costs should be charged.

As a result of its considerations, The Reprinting Committee believes:

- (1) Lending for commercial reprinting should be within the sole determination of the owning library.
- (2) There should be payment of fees for the lending because of the costs to the lending institution.
- (3) Libraries should be free to ask for compensation above the service fees when unusual materials are lent.
- (4) The original publication should be returned in condition no different than when it was lent, unless there are special arrangements for cutting the volume, rebinding it, or replacing it.
- (5) The damage which a publication suffers should entitle a library to reimbursement for the amount of damage.
- (6) The reprint publisher should supply an appropriate number of copies of the reprint to the lending library, if the library so wishes, or should make a cash or credit arrangement in place of copies.
- (7) Time limits on loans should be observed.
- (8) Libraries should be free to deal with reprinters which they consider most satisfactory to their purposes.
- (9) Reprinters who depart from the conditions which libraries set should not be considered suitable partners in an arrangement.
- (10) Reprints should bear a credit line mentioning the owning library, if the lending library so wishes.
- (11) Reprints should be exact textual copies of the original and on good paper; when there are textual departures, these should be understood by the lending library, and variances should be boldly stated in the reprint and in all advertising for the reprint.
- (12) A reprint edition of a publication should indicate clearly and accurately, preferably on the title page or its verso, the full bibliographic information of the edition being reprinted, and such information should be used in all advertising and promotion.
- (13) Reprints which are advertised to appear should in fact be published within one year of the first announcement of publication, or public announcement should be made indicating change of plans. Failure to do so would make the publisher liable to censure.
- (14) It is understood that any person or organization borrowing a publication on interlibrary loan will not use it for reprint purposes without the specific permission in writing of the lending library.

Cataloging and Classification Section Report

DOROTHY LADD, *Chairman*

The anxiously awaited *A.L.A. Filing Rules*, edited by Pauline A. Seely and a subcommittee of the A.L.A. Editorial Committee and approved by the Section's Executive Committee, appeared in an abridged edition in June, followed by the full edition in August. The Proceedings of the 1966 Institute on the Use of the Library of Congress Classification will be published in October.

This has been a year for examining the functions of committees and considering special areas lacking adequate coverage. The appointment of two new joint committees has been approved by the Section's Executive Committee in answer to expressed needs for guidelines. The new Committee on Cataloging Children's Materials, selected with the advice and consent of the American Association of School Librarians and the Children's Services Division, was the recommendation of an Ad Hoc Committee which met in San Francisco, June 1967. The new Committee on Audio Visual Media in Libraries will investigate and make recommendations for the organization of non-book materials.

The present interdependence of classification and subject analysis of materials has led the Executive Committee, with the Section's approval, to restructure the Classification and Subject Headings Committees into one Committee on Subject Analysis and Organization of Library Materials with the option of appointing subcommittees to deal with special problems in either area. The Far Eastern Materials Committee has been discharged with gratitude for its past accomplishments.

C. Donald Cook graciously accepted appointment as Assistant Editor for the Section when Paul S. Dunkin became Editor of *Library Resources & Technical Services*.

The Section's committees carried on in their special areas. The Bylaws Committee, always ready, was not required to act. The Descriptive Cataloging Committee has continued its work with the Library of Congress on transliteration tables and possible revisions in Chapter 12 of the *Anglo-American Cataloging Rules*. The Policy and Research Committee's "Study on the Use of Non-Professional Staff in Cataloging" is being done by Joseph Rosenthal with the advice and counsel of the Committee. The MARC project and the National Program for Acquisition and Cataloging, and the use of the Dewey Decimal Classification abroad continue to be of concern to this Committee.

The Classification Committee has been formulating a questionnaire for a study on reclassification in libraries while the Subject Headings Committee is preparing a questionnaire on the use of subject headings. The latter committee is also making plans for the forthcoming Pre-conference Institute on Subject Analysis to be held jointly with ISAD at Atlantic City, June 1969.

The Conference Program Committee presented an experimental *Seminar on the Anglo-American Cataloging Rules* instead of a pre-conference institute. Three sessions were held, with papers by Pauline A. Seely, Carolyn A. Small, Frances Hinton, and Katharine Clugston, followed by dispersal of the participants into eleven workshop groups. Each group presented a short report of its discussion of problems encountered at the final summary session. Our

thanks go to the Descriptive Cataloging Committee, the speakers, discussion leaders, and recorders for a very satisfactory program.

Continuing the recognition of outstanding members of our profession the Margaret Mann Citation in Cataloging and Classification was awarded our "elder statesman with a refreshingly young perspective," Paul S. Dunkin, for his contribution to the development and techniques of organizing recorded human knowledge.

For cooperation and conscientious attention to the Section's business and projects the Chairman wishes to thank all the officers and committee members, and our Executive Secretary, Elizabeth Rodell, additionally for her patient guidance.

Reproduction of Library Materials Section Report

WILLIAM S. BUDINGTON, *Chairman*

In its first year under a new name, the Section saw several activities move to completion, and lively interest develop in a new area of its concern, telefacsimile transmission. With respect to publications, two of its sponsored works (announced in last year's "Annual Report") have already gone out of print. The reprinting of *Microfilm Norms*, published in August 1966, was questioned because of unusual cost requirements; for the moment, it can be obtained through the University Microfilm's reprinting service. A further revision, possible reprinting by ALA or other organizations, or referral to USASI and ISO are under discussion.

The *Directory of Library Photoduplication Services*, 3rd edition, completed by Cosby Brinkley, is also depleted. A proposal was received from the RSD Interlibrary Loan Committee to incorporate selected sections in a new questionnaire with data inclusion in the next revision. The compiler was found to be receptive to this idea, and some little exchange of correspondence with the RSD group occurred. Final agreement on the ILL-related questions was approached, with questionnaire preparation and distribution slated for Summer, 1968.

Usefulness of the Section's leaflet on photocopying was studied last year by a committee-of-one, David Nevin. Approval was given to his recommendation that it not be revised and reissued, due to rapidity of change in this field, the presence of Hawken's *Copying Methods Manual*, and inapplicability to many library situations.

The Committee on Photocopying Costs in Libraries, chaired by Robert Sullivan, completed the analysis of its 1966 survey results and has submitted an article to *LRTS* reviewing the findings. Allen Veaner, chairing the Simplified Payments Committee, submitted and received approval for questionnaires, later sent to selected users and suppliers of photocopies. These tested the idea of a credit card plan for billing and payment. Despite a high degree of interest shown by 50% response, no great enthusiasm for this solution was apparent.

At its Midwinter meeting, the Executive Committee restated its opposition to a proposal from the PH5-2 group of USASI that the 3 x 5 inch microfiche size be dropped from any proposed standard. Presence of large quantities of this

size in libraries, and the need for associated equipment, made its retention valid, although preference might indeed be encouraged for the 4 × 6 inch format.

The new Telefacsimile Committee, under chairman David Heron, held stimulating meetings at annual and Midwinter conferences, receiving firsthand reports from a number of experimental projects. With rising concern for resource sharing and network communication, the Section devoted its Kansas City program to the topic of facsimile transmission, with David Heron carrying major responsibility for speaker commitment and demonstration set-ups by various manufacturers.

Finally, the Section's long concern with the inadequacy in its interest area of the old *ALA Glossary* was partially abated, upon appointment of a subcommittee of the ALA Editorial Committee to initiate work on a revision.

Serials Section Report

WILLIAM H. HUFF, *Chairman*

Serials Policy and Research Committee

The Serials Policy and Research Committee under the Chairmanship of Donald Hammer brought several matters to the attention of the SS Executive Committee. Of particular note are the following which were discussed by this Committee at San Francisco and formally presented at the Miami Midwinter meeting. The earlier discussions anticipated some of the problems to be subsequently raised by the National Serials Data Program and involved consideration of: a study of the existing computer-oriented systems which forecast the arrival of journals; a study to determine frequency patterns of journals; a study of internal forms used in automated systems giving holdings information; a study of a universal numbering system for serials; a study to determine the number of serial titles.

The dominating idea in the minds of a majority of people directly connected with serial work is how will the National Serials Data Program affect the handling of serials in terms of short and long range planning for computer-oriented serial systems. Further general consideration is to be given the above matters before any action is taken by the SS Executive Committee, possibly after the Serials Data Program survey information has been shaken down and assessed.

One other item of concern this year was the possibility of a study to consider the feasibility of a "Union Catalog of Serials" automation package which would include programs, documentation, etc.

Joint Committee on the Union List of Serials

Kenneth Soderland, SS Representative, reports that *New Serial Titles* will change from its present pattern of publication, as a result of the *Consumer Survey of New Serial Titles*, to the one followed by the *National Union Catalog* (9 monthly, 3 quarterly, and an annual issue). Other recommendations in the "Survey" are to be followed up by a subcommittee to be appointed.

The LC Information Systems Office has begun the first phase of the Serials Data Program with the funds available. The major participants are the three national libraries with financial support from the Council on Library Resources and the National Science Foundation. A user survey is being made by Nelson Associates covering 40 institutions and the contacting of between 120-150 people in these institutions. This review of what is happening in serials work throughout the country will involve consideration of coordination of MARC format, application of a universal numbering scheme, and examination of the application of a national serials data system in various types of libraries.

It is planned that the "Survey" will provide a final format for discussion of the data elements involved, but not before September 30, 1968.

Joint Committee to Revise the List of International Subscription Agents

The Chairman, Mrs. Roma Gregory, reports that her Committee has revised the "List" which will be slightly larger than the earlier edition. It is planned that a typed manuscript will be ready in late summer or early fall to be submitted for publication. The Committee recommends that revisions of the list be continued but that an editor be found for this task and the Committee as such be abolished. A further recommendation is that the need for a list of domestic subscription agents be studied.

Duplicates Exchange Union Committee

The DEU Chairman, Mary Pound, reports that some 375 libraries now participate in the Duplicates Exchange Union. A revised address-membership list was prepared and distributed by the RTSD office in August. This spring a most attractive brochure was made available and reflects the revitalization of this Committee under its present chairman. The brochure presents the purposes of DEU and outlines clearly the procedures to be followed for libraries wishing to participate. The Committee presently is working on the recruitment of junior colleges to membership in the Union.

Nominating Committee and Appointments

The Nominating Committee, under the Chairmanship of Elizabeth F. Norton, prepared a full slate of nominees for the elective offices.

SS Vice-Chairman, Charles G. LaHood, Jr., reported appointments which were made to fill committee vacancies; this was approved by the Executive Committee.

Bylaws Committee

No special action has been required thus far this year involving this Committee's services.

Library Resources & Technical Services

Elizabeth F. Norton became Assistant Editor for Serials. Serials material appeared during the year with several items including an article on *CODEN* in the summer issue of *LRTS*. Donald Hammer is the author of this article.

Serials Section Publication

Following up on an earlier suggestion of the Policy and Research Committee, a "newsletter-type" publication called *Serial Intercom* has been established.

Initially this limited circulation publication will go to SS Committee members, members of SS Discussion Groups, and officers of the regional groups. If a need for this type of informal publication is demonstrated, a revision of publishing procedures and scope of distribution will be considered. The editor, Barbara A. Gates (Boston University Libraries), plans to publish the first issue in late July or early August.

Discussion Groups

Both the Large Research Libraries and Medium-sized Libraries Discussion Groups develop their memberships and organizations. In an effort to bring people from smaller libraries into RTSD serial activities, Barbara A. Gates, Chairman of the Medium-sized Libraries Discussion Group, is requesting from this body names of persons who are interested in committee assignments.

U. S. Congresses and Conferences without Fixed Headquarters (Ad hoc) AS/SS

The Chairman, Mrs. Mary Kahler, announced that the Committee's report would be published in *LRTS*. The Committee was discharged with thanks from both the Acquisitions and Serials Sections.

Committee to Study Feasibility of Developing a Directory of Serial Librarians (Ad hoc)

Donald R. Briggs, Chairman, presented the Committee's *Final Report* at the Kansas City SS Executive Meeting outlining the facts and the problems involved in developing a directory of serial librarians. The report was accepted and the Committee discharged. The possible use of the ALA data processing system is being investigated.

Kansas City Conference Program

A program co-sponsored by RTSD/RTSD Serials Section and the Information Science and Automation Division centered around the National Serials Data Program was presented. Originally the Serials Section had considered sponsoring independently, or possibly in conjunction with ISAD, a program on the activities of the National Serials Data Program. However, this subject was subsequently regarded as both interesting and significant enough to present on a Divisional level.

This puts into motion a feeling in the Serials Section that smaller program meetings might well be eliminated in favor of larger, joint efforts.

Liaison Personnel

Mrs. Elaine W. Woods (Library of Congress) was named the liaison member from ISAD for the Serials Section. Samuel Lazerow (Library of Congress) has accepted the appointment as the Serials Section liaison at LC. Both of the liaison positions are new to the Serials Section roster this year.

There is a growing need for liaison work particularly relative to having our Section tied in tightly with all committees in all Divisions involved with any numbering schemes or coding devices concerning serials.

The Chairman acknowledges with thanks the cooperation, support and advice received from the officers, chairmen, committee members, and the Executive Secretary during the year. Their efforts were responsible for the substantive accomplishments cited above and the developing of new programs without which the Section could not have moved forward.

RTSD'S WORK PROJECTS MEETING

The RTSD Planning Committee's "Call for Ideas," released last spring, found a responsive and responsible membership. The committee's attempt to draw on the ideas and energies of the division membership was an experiment which, according to the call, was "an optimistic effort to enlarge participation in RTSD's goals, to give an opportunity for participation to all who wish to work in the division's program, to involve in projects those most interested in them, to coordinate activities and avoid wasteful repetition, and to gain the advantages of discussion."

The call appeared in the professional press, asking interested members and nonmembers to submit a written description of ideas for studies or projects within the technical services area for consideration at a meeting during the Kansas City Conference. The response, encouraged by a news story in the *Library Journal* (June 1, 1968, p. 2192) was gratifying.

Twenty-one proposals were received from eighteen persons. Roughly grouped for discussion, they were as follows:

ACQUISITIONS

1. Exchange of information on op acquisitions. Eldred Smith
2. Prompt and efficient op want lists service. Elmer S. Newman
3. On-approval, foreign-language purchasing for undergraduate libraries. Jerome K. Miller

CATALOGING

4. Cooperative cataloging of materials not cataloged by LC. Hudson R. Standing
5. Guidelines for the commercial cataloging of children's books. Florence E. DeHart
6. Guide to catalog entries and headings made prior to the Anglo-American cataloging rules. C. Sumner Spalding

SUBJECT HEADINGS

7. Up-to-date cross references through automation. Leslie R. Morris
8. Subject headings in relation to the mixed use of Wilson and LC catalog cards. Martha M. Guenther
9. Information about LC subject heading changes. Hudson R. Standing
10. A number-based alternative to the alphabetical subject approach. J. McRee Elrod and William Watson

CLASSIFICATION

11. Manual for reclassifying from Dewey to LC. Jessie M. Dickerson
12. Replacement for the Cutter Table. Leslie R. Morris

TECHNICAL SERVICES

13. Suggested technical service procedures from selection to withdrawal. Kenneth O. Stevenson
14. Development of procedures and norms for performance, productivity, and prediction studies by libraries. Ellen Wasby
15. Workbook-type textbooks in the technical services. Kenneth O. Stevenson

16. Central control of funding for technical service projects. William Watson and J. McRee Elrod

UNCLASSIFIED

17. Issuing-office and title indexes to the Superintendent of Documents classification system. Catharine J. Reynolds
18. Non-removable rods for catalog drawers. Arline Willar
19. Storage units for non-book media. Alma Tillin
20. Personnel factors in changeover to centralized processing. Sarah K. Vann
21. Development of broad subject concepts related to large-class library classification. G. M. Coble

The meeting was held on June 26 at 4:30 in the afternoon, providing a ninety-minute discussion period. The Planning Committee chairman presided over an able and experienced panel composed of Hazel M. DeMeyer of Western Michigan University, Chairman of the Acquisitions Section Policy and Research Committee; Donald P. Hammer of Purdue University Libraries, Chairman of the Serials Section Policy and Research Committee; Richard O. Pautsch of Brooklyn Public Library, Chairman of the Cataloging and Classification Section Policy and Research Committee; and James W. Henderson, New York Public Library, representing the RTSD Resources Committee. Many of the members of the several committees were on hand for the meeting.

The sectional policy and research committees and the divisional Planning Committee are strong committees. They are the think-and-recommendation arms of their units and have no authority to act. During their five-year terms, the five members of each committee move through a sequence of responsibilities—new member, secretary, vice-chairman, chairman, and past chairman—so that each member has a maximum opportunity to make an informed contribution to the content and shape of his unit's activities. Unfortunately, meeting time at the two annual ALA conferences is so full that these committees do not have an opportunity to develop their full potential, and between-conference meetings of a day or two are badly needed to provide creative and provocative leadership.

The four panel members had seen the proposals before the conference and had been asked to give special attention to those within their committee responsibilities. For the most part, they had not had time to circulate the proposals to their committees or to discuss them at conference meetings.

One of several fates could be anticipated for proposals at the hands of the panel and the audience: rejection as impractical; return because the problem posed was already solved or in process of solution; or referral to an action unit with a recommendation for further consideration or implementation. The latter action might result in consideration by an appropriate existing committee; the appointment of a special committee; the naming of a subcommittee by a committee already generally involved in the area under discussion; action by the ALA Library Technology Program or research centers attached to library schools; later rejection; or some other eventual disposition.

The meeting failed in a major respect: it could not cover all the proposals submitted. As it became obvious during the meeting that there simply was not enough time, it was decided to depart from the order of the list of proposals and to discuss those whose authors were present. Subsequently, the Planning Committee and the sectional policy and research committees, meeting together, acted to refer the remaining proposals to appropriate action units.

What was the final score? Of the twenty-one proposals, five were referred to the sectional policy and research committees, four to the Planning Committee, seven to other RTSD and sectional committees, and two to the Library Technology Program; one each was found to be already in production, left to be pursued by the proposer, and rejected as better handled by the Library of Congress. In addition, there were some intimations of by-product activities growing out of the discussion, and some projects implied cooperative action with other ALA units.

The Planning Committee (composed of Margaret C. Brown, Edwin B. Colburn, Dorothy J. Comins, David C. Weber, and Helen Welch Tuttle, Chairman, and strongly supported, as usual, by Elizabeth Rodell) felt that the general reaction to the experiment had been good. The meeting was a success in terms of (1) attracting an audience of approximately two hundred instead of the anticipated fifty or so; (2) producing good proposals and pointing to professional needs; (3) finding new names to add to the list of old faithfuls available for divisional projects; (4) matching the new names to their owners' areas of interest; and (5) providing an open market place in which activities could be ventilated and coordinated. It was a failure in that it did not provide a meeting format which would allow for adequate discussion of the proposals or offer an apparatus for more immediate action in starting projects toward productive ends. In short, the membership's performance was first class; the direction was inexperienced and inept.

What were the lessons of the experiment? Most important, such a meeting is feasible and productive. It is quite possible that the committee will again seek to tap the concern and intelligence of the membership. In a second attempt, the meeting should be held early in the conference week so that the Planning Committee and the policy and research committees could consider the proposals during meetings later in the week. Before the conference, copies of the proposals should be sent not only to policy and research committee chairmen, but also to their committee members, so that all would be fully prepared. Library of Congress representation (preferably from the Processing Department) should be officially involved in the meeting and should receive copies of the proposals before the conference. Members of the audience should be handed not just a list of proposals and their authors, but also a short resume of each proposal. Meeting time could be saved by discussing related proposals as a group.

Perhaps the most obvious and immediate benefit of the meeting was the dialogue which some of the proposals sparked between LC staff and the membership. The Planning Committee cannot too strongly express its gratitude to William J. Welsh, Director of the LC Processing Department, and C. Sumner Spalding, Assistant Director for Cataloging, who not only answered questions, made comments, and listened, but who seemed to *hear* the messages. The Committee's thanks go also to those who proposed, those who attended, and especially to those who did both.—*Helen Welch Tuttle, Chairman, RTSD Planning Committee*

*DECIMAL CLASSIFICATION EDITORIAL
POLICY COMMITTEE
ANNUAL REPORT, 1967/68*

In 1966/67, the Decimal Classification Editorial Policy Committee held its customary two meetings, both at the Library of Congress in Washington. The October meeting was the stipulated annual meeting at which Mary Louise Mann of the Indianapolis public school system began her six-year term as a nominee of the ALA Resources and Technical Services Division, Cataloging and Classification Section, and Virginia Drewry began her fourth three-year term as the designated representative of the American Library Association. Miss Mann succeeds the late Esther J. Piercy. The second meeting of the Committee was held in March. Minutes of both meetings, setting forth in detail the business transacted at each, have been or are being distributed to the Lake Placid Club Education Foundation and to the American Library Association.

The Committee has continued its review of editorial criteria for schedules and index of Edition 18 and drafts of schedules, as these were proposed by the Editor throughout the year. Editorial criteria had been largely established by the beginning of this fiscal period, but some refinements and minor changes were approved during 1967/68. During the year, draft schedules for the following classes were approved by the Committee and recommended to Forest Press for adoption: Generalities (000), Statistical Method and Statistics (310), Political Science (320), Public Administration (350), Welfare and Association (360), Language (400), Literature and Rhetoric (800), the Pure Sciences (500), Technology (600-609), and History (900). A feature of the 500 class is a new phoenix schedule for mathematics (510) that the Committee has recommended be published in full in *DC6* for further critical review by the profession before it is finally adopted.

Additionally, the Committee initiated action to have the statement of its responsibilities revised. As a joint committee of the Lake Placid Club Education Foundation and ALA, the Committee's functions originally called for DCEPC to have control of editorial policy for the Decimal Classification, a delegation of authority that the Committee and the Directors of Forest Press both agree was unrealistic and unwise. Under the terms of the contract for Edition 18 negotiated between Forest Press and the Library of Congress, this function was effectively changed; for, since the date of that contract, Committee recommendations are transmitted to Forest Press for approval and implementation and are not sent directly to the Editorial Office. At its October meeting, the Committee agreed that the present *modus operandi* was in complete harmony with its own conception of its proper role and recommended to Forest Press, acting for the Lake Placid Club Education Foundation, and to the American Library Association that DCEPC be constituted as an advisory body to Forest Press. This recommendation has now been approved by both parent bodies, and the regulations for the conduct of Committee business are being revised to reflect this change.

December 1967 saw publication of the revised index to Edition 17, prepared in accordance with recommendations originally made to Forest Press by the Committee in March, 1966. The revised index had been modelled after the index to Edition 16. At this time, only a few reviews of the revised index have been published, but most critics seem to view the revision as a significant improvement over the original index to Edition 17. Index criteria approved by the Committee for Edition 18 hopefully will assure an index to that edition which will continue the tradition of a relative index along the lines of Edition 16 and Edition 17 Revised, at the same time incorporating improvements and

refinements calculated both to increase specificity and to improve relativity.

Members of the Committee at the end of the year are Edwin B. Colburn, Virginia Drewry, Carlyle J. Frarey, Francis E. Hinton, John A. Humphry, Mary Louise Mann, Pauline A. Seely, Marietta Daniels Shepard, and William J. Welsh. Mr. Deo B. Colburn continues to serve as the appointed secretary.—*Carlyle J. Frarey, Chairman.*

REVISED FILING CODE FOR LIBRARIES

Publication of the comprehensive second edition of *A.L.A. Rules for Filing Catalog Cards* (Chicago, ALA, 1968, 274p., \$6.75) in late August climaxes a five-year project significant to all libraries. Coupled with the abridged version (Chicago, ALA, 1968, 104p., \$2.00, paper) published in mid-June, the new rules will serve libraries of all types and sizes.

Prepared by a special subcommittee of ALA's Editorial Committee, these new, official rules are the first revision since publication of the 1942 filing rules. Under the chairmanship of Pauline A. Seely, who also acted as editor, hundreds of libraries were queried and cooperated during the subcommittee's study of the needs and development of rules to meet them.

Responding to the expressed desire of librarians for simplification, the new rules provide a consistent code based on the principle of a single-alphabet arrangement. The new Rules are designed to meet current library needs in solving the filing problems occasioned by developments and changes of the past twenty-five years.

This comprehensive version constitutes a very full and detailed code. It covers much specialized and foreign material and includes philosophical and descriptive notes pertaining to filing principles and their correlation with cataloging rules. Coordination with the new *Anglo-American Cataloging Rules* (ALA 1967) is emphasized throughout with suggestions for incorporating new-form with old-form headings. Numerous, up-to-date examples illustrate application of every rule. Designed basically for manual filing in dictionary catalogs of any size, the rules are universally applicable and also generally suitable for divided catalogs, book catalogs, and indexes.

The rules are arranged in a logical order in two parts: I. Alphabetical Arrangement; II. Order of Entries. Under each part related rules are grouped under appropriate headings. An extensive glossary, list of initial articles to be disregarded, and a detailed index provide added helps.

Pauline A. Seely, Chairman of the Committee to revise the rules, served as editor of both the comprehensive and abridged versions of the rules. Director of Technical Services, Denver Public Library, she is also co-author, with Richard B. Sealock, of the first and second editions of *Bibliography of Place-Name Literature* (A.L.A. 1948 and 1967).

INTERPRETATION OF THE LC CLASSIFICATION

In October the American Library Association will publish one of its most unusual and useful books, *The Use of the Library of Congress Classification*, unusual because it is the result of an institute designed specifically to produce this book and useful because it presents practical instruction based on sound theory.

In response to the widespread need for guidance in the use of the Library of Congress Classification, A.L.A.'s Classification Committee sponsored a three-day institute during 1966 in New York. Formal presentations and discussions by Library of Congress staff and practicing catalogers were intended to cover

the nature and use of the LC Classification. The entire institute was transcribed by a commercial reporting service. Each speaker approved the transcript of his own presentation. The papers were then edited to transform an audiovisual presentation into a book.

Presentations cover the nature and use of the LC Classification; identify areas in which special problems are likely to occur; explain frequently misunderstood operations; present guidelines for reclassification to the LC system; and summarize the significant factors, such as costs and personnel, involved in adopting and using the LC Classification.

Actual book titles are used to demonstrate the techniques and problems in applying the LC Classification system. Numerous excerpts from the schedules and the tables are complemented by samples of completed catalog cards to provide concrete illustration.

Among the other topics treated in detail are: a review of the use of the LC Classification; its development, characteristics, and structure; special problems in the fields of literature, science and technology, and social and political sciences; assignment of author numbers; shelvesting operations; cost estimates and timetables for changing to the LC Classification; and the general advantages and disadvantages in its use. A bibliography and list of libraries using the LC Classification are appended.

Though it is designed to offer manual-type guidance in use of the LC Classification, the present volume is not intended to be the definitive manual. As the only guide of its kind, it will however fill the real needs for a helpful instructional aid and an in-service training tool. The Library of Congress plans to give answers to future questions of general interest in its *Cataloging Service Bulletin. Library of Congress Classification—Additions and Changes* will carry specific shelflist arrangements which cannot be derived from classification schedules or the LC system of author numbers.

Richard H. Schimmelpfeng, principal editor, is Assistant Librarian, University of Connecticut. Co-editor C. Donald Cook, who also served as Co-chairman of the Institute, is Coordinator of Cataloging, Columbia University Libraries.

MARC II FORMAT ISSUED BY LIBRARY OF CONGRESS

The Library of Congress has published a description of the format being used in its MARC II project for the distribution of machine-readable bibliographic information. The 167-page paperback volume, *The MARC II Format, A Communications Format for Bibliographic Data*, is available for \$1.50 a copy from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

The publication describes the structure, content, and coding of a MARC record. The magnetic tapes being developed will be made available in the fall of 1968 by subscription through the Library's Card Division. Initially, the tapes will contain cataloging data only for current English-language monographs being cataloged at the Library.

CORRECTION

A printer's gremlin, coupled with the tired eyes of the Managing Editor, allowed the substitution of the word "countries" for the proper word "companies" in line 3 of Allen B. Veaner's "Developments in Reproduction of Library Materials & Graphic Communication, 1967," *LRTS*, 12:203 (Spring, 1968). We apologize to the author for this error and urge all readers to substitute the correct word in their copies of that issue.

DATA ON BOOK CATALOGS SOUGHT

Professor Maurice F. Tauber, School of Library Service, Columbia University, is making a study of book catalogs, for the Book Catalogs Committee of the American Library Association.

Dr. Tauber is interested in receiving any information about newly established book catalogs: their format, their cost, their relationships to publishing agencies, and their particular publication procedures (computer, photographic, or other methods). He is particularly interested in book catalogs that have been started since January, 1966.

If you have such information available, please send it to Dr. Tauber or correspond with him at the School of Library Service, Columbia University, New York, New York 10027.

INTERNATIONAL FEDERATION FOR DOCUMENTATION NEW FID PUBLICATIONS

INTERNATIONAL CONFERENCE ON EDUCATION FOR SCIENTIFIC INFORMATION WORK.
Proceedings of the Conference, London, April 3-7, 1967.

1967, xi + 270 pages (FID 422)—\$8.40

The Conference was attended by 54 experts from 14 countries and 2 international organizations.

Areas discussed were:

- Future needs of education in information science
- Educational background for entry to courses and ultimate aim of the courses
- Syllabus and structure of courses
- Collaboration
- The provision of teachers and research workers

The Proceedings contain the full texts of the 33 papers presented at the Conference, detailed reports of their discussions, and the final summing-up.

LIBRARY AND DOCUMENTATION JOURNALS. 3rd edition.

1968, 88 pages (FID 433)—\$5.60

The directory lists 517 periodicals and serials issued in 57 countries.

A special section gives details of 47 abstracting and indexing services in library science and documentation.

The subject index covers types of libraries, techniques and application fields.

These publications are available from:

International Federation for Documentation (FID)
7 Hofweg
The Hague, Netherlands

REVIEWS

Dougherty, Richard M. and Stephens, James G. *Investigation Concerning the Modification of the University of Illinois Computerized Serials Book Catalog to Achieve an Operative System at the University of Colorado Libraries*. Boulder, Col., University of Colorado Libraries, April 1968. 59 p.

If this report proves of no other value than to alert library administrators to the fact that there is no quick and inexpensive way to the promised panacea of library automation, it will have more than served its purpose. The frustrations and disappointments encountered by the Colorado staff in the course of their experiment were typical of those encountered by anyone involved in data processing. The difficulties sometimes border on the comic opera level, but they can be grim for those who are attempting to unlock the tremendous potential of library automation.

The overall objective of the Colorado experiment was to identify the problems encountered when a library attempts to use computer programs and a data bank developed elsewhere. In this particular case, the "elsewhere" was the University of Illinois Libraries.

The specific objectives, briefly stated, were to record the problems encountered, the modifications required by the different computer configurations, the local input modifications necessary, and the experiences of others who have attempted the same experiment.

The principal objective as far as the University of Colorado Libraries were concerned was the production of a serials book catalog that would "provide library users with a means of locating serials information from all public service points." Apparently, all of the objectives were attained, but the principal one quoted above came off a bit untidy.

The difficulties encountered in the attempt to use the Illinois data were so great because of policy differences in the two libraries that the effort was eventually abandoned. In addition, the attempts to use the Illinois computer programs revealed some of them as incomplete and others inoperable. As is often the case with "canned" programs, the documentation is one thing and the programming is something else. This is a common experience in the field and certainly not unique in this instance. Eventually, by patching the programs Colorado apparently managed to complete their book catalog, but the system lacks, among other things, an update capability.

This reviewer was happy to discover that included in the experiment was "a study of user informational gathering habits to identify more clearly serial systems requirements." Much to the reviewer's disappointment the results of the user study were not included in this report. It would seem that the results of that study, if the study was well done, could very well be more important to the profession than the report on the serial catalog system's trials and tribulations. Hopefully, if significant, that report will be made available soon.

The absence of that data in the present report, however, leads the reader to question the validity of the user study, since it is obvious that many of the decisions made during the development of the serials catalog were made arbitrarily or were made for reasons not related to the patron's needs. Scattered throughout the report are unanswered questions regarding the user's consultation of the library's serial records. "How does a user consult a library's serial record; what types of search strategies does he employ; what reliance does he place on a library's records?" Since questions like the example above are raised all

through the report, but not answered, the reader is left to wonder what the user study was all about.

The report is much too wordy and repetitious, and therefore much too long. Instead of a separate report, a very good journal article could have been written about the project that would have better served the purpose. In addition, there is some questionable use of terminology and some very debatable statements made. An example of the latter follows: "It is these programs (interdisciplinary research) that have eroded the effectiveness of departmental collections and catalogs developed along traditional disciplinary lines." Departmental collections were never intended to take care of interdisciplinary research. The problem has not been one of erosion, but of an inability, financial and otherwise, to cover satisfactorily all peripheral subject areas. In the case of the catalogs, interdisciplinary research has enriched them, not eroded them. However, their problems go much deeper than that.

Finally, a potpourri of comments on other points: After reading the report, one would like to see an example of the final catalog, but unfortunately no sample pages were included. An interesting experiment in patron use of the library's serials check-in records is briefly described in the report, and the results indicated very little public use of these files. Colorado's results confirm those obtained from a similar experiment at Purdue where it was suspected and later proven that the libraries' staff referred to the files, but few others did. An examination of the labor costs given in the report shows editing of the data at four different times during the input preparation. This seems excessive unless there were reasons for that much revision that are not apparent in the report.

In summary, the report is an honest and frank statement that does not gloss

over or ignore the difficulties and failures of the attempted experiment. If the automation field produced more candid statements such as this one, there would probably be less effervescence and pretense and more serious work in the field. Every administrator who has an automation gleam in his starry-eyes should read this report.—*Donald P. Hammer, Libraries Systems Development, Purdue University Libraries, Lafayette, Indiana*

Schieber, William D. and Shoffner, Ralph M. *Telefacsimile in Libraries: A Report of an Experiment in Facsimile Transmission and an Analysis of Implications for Interlibrary Loan Systems*. Berkeley, University of California Institute of Library Research, February 1968. 137 p.

The New York State Library's Pilot Program in the Facsimile Transmission of Library Materials: A Summary Report. New York, Nelson Associates, Inc., June 1968. 85 p.

The general conclusion to be drawn from these two reports is that the time is not yet ripe for economical facsimile transmission of library materials. For a single one-way link from the Berkeley to the Davis campus of the University of California, the report authors project the cost of a service more efficiently organized than their experiment at one dollar per page, with an average delay time of six hours. Only eight percent of the users (9 out of 112) indicated they would be willing to pay more than 20 cents per page for the service. In the more extensive New York State network experiment, costs averaged more than \$56 per request filled for requests which did not exceed 12 pages of facsimile copy. Assuming an average page size near the maximum, these costs are still in excess of \$5 per page.

Although a significant minority of patrons in both experiments indicated a need for the rapid service that, in principle, should be obtained from a facsimile service, a majority in both experiments indicated that the additional speed was not essential. This is not a surprising finding when one considers that most of the patrons were accustomed to slower conventional means of servicing their requests. Whether a faster more reliable service available on a continuing basis would attract patrons not now using inter-library loan services is another question.

In both experiments, although more obviously so in the New York study, mechanical difficulties and unsatisfactory copy quality were problems. Both concluded that effort would be better placed, at present, on the improvement of existing manual systems, such as Xerox and mail services for short articles and conventional inter-library loan for material of longer length.—*Edwin B. Parker, Institute for Communication Research, Stanford University, California*

Smith, Josephine Metcalfe. *A Chronology of Librarianship*. Metuchen, N.J., The Scarecrow Press, Inc., 1968. 263 p. \$7.00.

Unlike John L. Thornton's *Chronology of Librarianship* (1941) this book "emphasizes librarianship in the United States." The book also claims that "it is more concerned with service than with persons or historic collections" (p. v). The nature of the work may be seen from two entries chosen by chance:

"1250. The earliest known example of cooperative cataloging is ascribed to the *Registrum Librorum Angliae* begun this year (Thornton p. 150). Gordon R. Williams, director of the Center for Research Libraries (MILC), speaking at the SLA conference in

1964, says that this quotation 'man cooperateth with man unto repentence,' from Bishop Ussher of Armagh in 1625, is the first English use of the term cooperate; however, one interprets that, cooperative ventures in the twentieth century are felt to be the 'redemption' of library service."

"1400. Sometime within this century a monk reached into his headband, extracted a leather thong and marked his place in the manuscript he was using; Thompson reports this as the first bookmark, cf. Thompson, p. 623. This is much more believable and acceptable than the story we keep hearing about finding a strip of bacon in a returned book!"

Apparently the entry for 1400 is based on a passage in James Westfall Thompson's *The Medieval Library* (1939) p. 623: "The first bookmarks were leathern thongs brought down from the headbands for markers. An early example is a fifteenth-century manuscript formerly in the Dunn Library . . ."

Gossipy and rambling, casual about references, seldom citing a primary source, this is a book to be opened (if at all) and read at random. You may sometimes not find the truth, the whole truth, and nothing but the truth, but you may be entertained. At the close are a bibliography, a subject index, and a name index.—*P.S.D.*

Subject Index to New Serial Titles. Ann Arbor, Mich., The Pierian Press. 434 p. \$29.50.

C. Edward Wall, publisher and editor of this work describes it as a "unique subject approach" to *New Serial Titles* 1950-1960, and *New Serial Titles* 1961-1965. It is that. Librarians are accustomed to having complete bibliographical citations provided in *New Serial Titles—Classified Subject Arrangement*. It is therefore a surprise to find the subject approach

consists of six column pages listing the Dewey classification numbers, followed by six digits which locate the citations listed in the two cumulations of *NST*.

The *Subject Index* is in four parts: (1) a classified table of contents, (2) a single subject index, (3) a comparative subject index, and (4) an index to the subject headings under which the entries are located.

The "Classified Table of Contents" is in three parts: (1) First Summary Classes, (2) Second Summary Division, and (3) a Complete List of Subject Headings. The first two parts are directly adopted from the *Dewey Decimal Classification and Relative Index*, 16th ed. The third part lists the descriptive subject headings used in the "Single Subject Index."

The "Single Subject Index" which makes up the main body of this work is described below.

The "Comparative Subject Index" refers to those items which were assigned two Dewey Classification numbers. This section has two parallel lists of sequential Dewey numbers followed by six digits which locate the citations.

The index to the subject headings under which the entries are grouped is called the "Form Index." It "acts as an index to the descriptive subject headings and Dewey Decimal Classification numbers, and it is designed to be used with the Table of Contents to facilitate the location of Dewey numbers. . . . The Form Index includes an alphabetical list of key words . . . which appear in the descriptive subject headings," e.g.:

BINDING

Book binding 095

BIOECOLOGY

Bioecology 574.5

BIOGEOGRAPHY

Natural history and

biogeography 574.9

This index is complicated to use but it does provide a subject key for *NST*.

It does not provide instant information as required for bibliographical identification at the reference desk, but it would be helpful in acquisitions for developing subject collections. Large research libraries might be interested in it for the latter purpose.

Examples of the Single Subject Index are:

000	General works	
000		1-1554-2
000		2-2100-1

To locate the bibliographical data for the first citation, one consults the first set (i.e., *NST* 1950-1960), turns to p. 1554, column 2 and checks for the classification number 000. The second citation is in set two (i.e., *NST* 1961-1965) p. 2100, column 1 under the classification number 000.

Examples of the Comparative Subject listings are:

571	970	1-0171-1
571	970.1	2-2631-3

Descriptive subject headings are not used for the Dewey numbers in the "Comparative Subject Index."

Wall notes that the Pierian Press will consider compiling additional *Subject Indexes* as further cumulations of *New Serial Titles* appear.—Elizabeth F. Norton, Assistant Editor, Serials Section, RTSD

Verry, H. R. *Microcopying Methods*. Revised by Gordon H. Wright. London and New York, The Focal Press, 1967. 183 pages. \$15.00.

The first edition of this book, reviewed in the January 1965 issue of *College and Research Libraries*, was marred by a large number of technical errors and bibliographic faults. It might be hoped that the revised edition would see the correction of many mistakes; the reader who buys with this expectation will be disappointed. While some of the earlier edition's

errors have been corrected, the new edition has unfortunately substituted different errors.

The first hint of trouble is revealed in the distressingly large number of trivial spelling errors, particularly in proper names. We have Vannevor Bush for Vannevar Bush, Gavaert for Gevaert, Dacon for Dacom, Avoc for Avco, and one citation to C. S. McCamy followed a few lines later in the bibliography by a citation to C. S. McCumy; in both cases McCamy is the correct reading. The index refers to the Council of Library Resources, and in a list of micropublishers, the Erasmus Press is situated at Lexington. Lexington, Kentucky? Lexington, Mass.? The reader is not told.

One might argue that quarreling with such proofreading errors is merely being pedantic, but regrettably these are but symptoms of other errors which are much less tolerable. On page 59, Readex Microprint Cards are said to be 6×9 mm in size. In describing a film transport device to protect film from scratching, the author states on page 78 that "the condensor lenses automatically separate when the film is moved." The purpose of the condensor is to gather and concentrate light for effective film projection; it has nothing whatever to do with the film transport mechanism in any reader. Undoubtedly, what the author meant to convey was that a pair of optical glass flats would separate automatically when the film advance crank is turned, as is done on the Kodak Model MPC reader. On pages 121-122, a misleading definition and interpretation of resolution is offered: "Resolution whether of an emulsion or of a lens is expressed in line per mm, and is the most closely spaced lines which will remain just separated after reduction." Actually, resolution is measured by multiplying the number of lines separable on the film image (viewed through a microscope) by the

reduction factor at which the film image was exposed. Thus, if on a resolution chart filmed at a reduction of $20\times$, it is possible for a film inspector to separate those lines which were spaced at 4.5 lines per mm on the original chart, the resolution is said to be 20×4.5 lines per mm, or 90 lines per mm. A series of exposure and processing faults and their causes are listed on page 125; "exhausted solution" is listed as a cause, and "poor quality microfilm" is cited as the corresponding effect. This typifies the uninformative and imprecise information which abounds throughout this volume.

A variety of experimental and obsolete equipment is described without any indication that much of the apparatus was either never marketed or built in prototype only. Two high reduction systems, Avco's Verac and IBM's Walnut, are mentioned in some detail, but the author does not indicate that these devices were one of a kind and never put into production. Similarly, FLIP is a discontinued item; RCA's Bizmac, an erstwhile competitor to the Xerox Copyflo enlarger, was built in only one model and never went into production. Microlex, an opaque microform, the author describes as if it were still available, although these cards have not been produced for some time.

One would expect that a book on microcopying would tell the reader something about splicing—its problems, technique, and equipment—but there is nothing in the book on this subject. An index entry under spools lead the reader to a text reference citing a Spanish standard on spools. It is difficult to explain why there is no index entry for USASI Standard PH5.6-1961, "Dimensions for 100-Foot Reels for Processed 16mm and 35mm Microfilm."

We are informed on page 72 that the "larger Copyflo" runs at 20 feet per minute, without being told the

presumed running rate of the "smaller Copyflo" machine. Actually, all early Copyflo machines ran at 20 feet per minute, and for several years it has been possible to have the machines modified by Xerox to run at 40 feet per minute, though this information is not conveyed to the reader.

A sketchy bibliography in this volume is as notable for its omissions as for its spelling errors. The well-known *Guide to Microreproduction Equipment*, edited by Hubbard Ballou, is nowhere to be found. Nor is there cited the *Manuel Pratique de Reproduction Documentaire et de Sélection* (Paris, Gauthier-Villars, 1964) by Paul Poindron. L. K. Born's article, "Planning for Scholarly Photocopying," is not listed. The title of Carl Nelson's book, *Microfilm Technology*, is mis-cited. Among periodicals cited is *Industrial Photography*, but *RM*, a much more important periodical for microcopying, is not listed.

Finally, in line with the warning that an "exhausted solution" produces "poor quality microfilm," a small glossary informs the reader that perforated film is a roll film with perforations.

Effective and accurate presentations of microcopying methods are available at the same price from either of two in print sources: W. R. Hawken's *Copying Methods Manual*, or Carl Nelson's *Microfilm Technology*. For several years before his death, Verry ran a regular column, noted for its excellence and accuracy, in the *Revue Internationale de la Documentation*. It is difficult to understand why these qualities are almost entirely absent from his book.—Allen B. Veaner, Assistant Editor, *Reproduction of Library Materials Section, RTSD*

CUSHING-MALLOY, INC.

1350 North Main Street

ANN ARBOR, MICHIGAN

LITHOPRINTERS

known for

**QUALITY—ECONOMY—
SERVICE**

**Let us quote on your next
printing**

- Most complete first-shipment service.
- Stocking for immediate shipment, more than 100,000 different titles!
- Four regional warehouses for rapid delivery!
- Biggest inventory of University Press Books.
- No order too small . . . none too large!
- Discounts competitive and realistic. Competitive bidding welcomed!
- Detailed reports on shorts!
- More than 30,000 titles, kindergarten through high school—standard cataloging and processing 60¢ per book—ready for immediate shipment! (Write for Elementary and/or out Secondary School catalogs)

BAKER & TAYLOR CO.

OLDEST & LARGEST U.S. BOOK WHOLESALER

Eastern Div., Somerville, N.J. 08876
Midwest & Southern Div., Moline, Ill. 60954
Western Div., Reno, Nev. 89502
Interstate Library Service (subsidiary)
Oklahoma City, Okla. 73118

Baker & Taylor Book Inspection Centers:
1701 West Gray Street 5820 Wilshire Blvd.
HOUSTON, TEXAS 77019 LOS ANGELES, CALIF. 90036



INDEX

Volume 12, 1968

A

ACQUISITIONS. "Acquisitions in 1967" (Dahl-Hansen) 117-185.

—. "Emerging Problems in Acquisitions" (Dougherty) 147-160.

—. *The Impact of the Public Law 480 Program* . . . (Williamson), review, 223-225.

—. "The National Program for Acquisitions and Cataloging" (Stevens) 17-29.

—. "A Symposium on Approval Order Plans" (Morrison) 133-145.

Alden, John. *Cleaning and Preserving Bindings and Related Materials* (Horton), review, 371-372.

Alexander, Elenora. "Emerging Problems in Acquisitions" (Dougherty) 148-152.

AMERICAN BOOK PUBLISHERS COUNCIL. "Emerging Problems in Acquisitions" (Dougherty) 147-160.

American Library Association. Library Standards for Microfilm Committee. *Microfilm Norms: Recommended Standards for Libraries*, review of, 123.

AMERICAN SOCIETY FOR TESTING AND MATERIALS. "A Review of the ASTM CODEN for Periodical Titles" (Hammer) 359-365.

Angell, Richard S. "C. Sumner Spalding," 67-69.

Applebaum, Edmond L. "The National Program for Acquisitions and Cataloging" (Stevens) 18-22.

Anglo-American Cataloguing Rules: British Text, review of, 368-369.

APPROVAL PLANS. "A Symposium on Approval Order Plans" (Morrison) 133-145.

Arden, L. L. *Copying Methods Manual* (Hawken), review, 118-123.

—. *Microfilm Norms: Recommended Standards for Libraries* (ALA), review, 123.

—. *Specifications for Library of Con-*

gress Microfilming (Salmon), review, 123.

AUTOMATION *see* COMPUTERS IN LIBRARIES
Avram, Henriette D. "MARC: The First Two Years," 245-250.

B

Banks, Paul N. "Some Problems in Book Conservation," 330-338.

Batty, D. C. *The Computer and the Library* (Cox, Dews, Dolby), review, 225-226.

BIBLIOGRAPHY. *Bibliography: Current State and Future Trends* (Downs, Jenkins), review, 226-227.

BLANKET ORDERS. "A Symposium on Approval Order Plans" (Morrison) 133-145.

Blean, Keith C., Jr. "The National Program for Acquisitions and Cataloging" (Stevens) 23-25.

Blumenfeld, Catherine. "The Jordan Plastic Book Box" (Jordan) 435-441.

BRITISH NATIONAL BIBLIOGRAPHY. "Machine-Readable Catalog for *British National Bibliography*," 374.

Brock, Clifton. "Depository Libraries: The Out-Houses of the Government's Information Transfer System," 407-414.

—. "The National Program for Acquisitions and Cataloging" (Stevens) 25-27.

Brose, Friedrich Karl-Heinz. "Public Relations Programs of Public Libraries' Technical Services," 320-322.

Brown, George W. *EDUNET*, review of, 225.

Brown, Margaret. "RTSD in an Age of Change," 442-446.

Browne, Joseph P. "A Symposium on Approval Order Plans" (Morrison) 142-144.

Brubeck, Katherine M. "Emerging Problems in Acquisitions" (Dougherty) 156-160.

Budington, William S. "RTSD Annual Reports, 1967/1968," 458-459.

C

- Carnovsky, Ruth French. "Paul S. Dunkin," 447-449.
- CATALOGING. "The Age of Cronin" (Clapp, Welsh) 385-405.
- . "An Analysis of Bibliographic Data Conversion Costs" (Simmons) 296-311.
- . *Anglo-American Cataloguing Rules: British Text*, review, 368-369.
- . "Catalog Entries for Primary Legal Sources" (Ellinger) 352-358.
- . *The Cataloging and Classification of Cinema Literature* (Steele), review, 373-374.
- . "The Cataloging Procedure Manual as a Teaching Device" (Hickey) 167-176.
- . "A Compendium of the MARC System" (Leach) 250-275.
- . "Design Considerations for the MARC Magnetic Tape Formats" (Knapp) 275-285.
- . "Machine-Readable Catalog for *British National Bibliography*," 374.
- . "MARC: The First Two Years" (Avram) 245-250.
- . "The Preparation of MARC Bibliographic Data for Machine Input" (Parker) 311-319.
- . "Special Characters and Diacritical Marks Used in Roman Alphabets" (Rather) 285-295.
- . "The Use of Title-Page Photography in Cataloging" (Weimerskirch) 37-46.
- . "The Year's Work in Cataloging—1967" (Cook) 186-188.
- CATALOGING, CENTRALIZED *see* CENTRALIZED CATALOGING
- CATALOGING, COOPERATIVE *see* COOPERATIVE CATALOGING
- CATALOGING, SHARED *see* SHARED CATALOGING
- CENTRALIZED CATALOGING. "The Age of Cronin" (Clapp, Welsh) 385-405.
- . "The National Program for Acquisitions and Cataloging" (Stevens) 17-29.
- CITATION INDEXING. "Efficacy of Citation Indexing in Reference Retrieval" (Huang) 415-434.
- Clapp, Verner W. "The Age of Cronin," 385-405.
- CLASSIFICATION—ART BOOKS. "Disorganized for Use" (Harris) 161-165.
- CLASSIFICATION—DEWEY DECIMAL. "Decimal Classification Editorial Policy Committee Annual Report, 1966/67," 105-107; "1967/68," 465-466.
- CLASSIFICATION—FILM MATERIALS. *The Cataloging and Classification of Cinema Literature* (Steele), review, 373-374.
- CODEN. "A Review of the ASTM CODEN for Periodical Titles" (Hammer) 359-365.
- Colvin, Laura C. "How I Spend My Typical Day, Week, and Year: Technical Services," 83-87.
- COMMUNICATION. *Communication: Concepts and Perspectives* (Thayer), review, 229-230.
- COMPUTERS IN LIBRARIES. *The Computer and the Library* (Cox, Dews, Dolby), review, 225-226.
- . *Investigation Concerning the . . . Computerized Serials Book Catalog* (Dougherty, Stephens), review, 469-470.
- CONSERVATION *see* PRESERVATION OF MATERIALS
- Cook, C. Donald. "The Year's Work in Cataloging—1967," 186-188.
- Cooper, Marianne. "Criteria for Weeding of Collections," 339-351.
- COOPERATIVE CATALOGING. "The Age of Cronin" (Clapp, Welsh) 385-405.
- . "The National Program for Acquisitions and Cataloging" (Stevens) 17-29.
- COPYING METHODS. *Copying Methods Manual* (Hawken), review, 118-123.
- . "Developments in Reproduction of Library Materials & Graphic Communication, 1967" (Veane) 203-214.
- . *Microcopying Methods* (Verry), review, 472-474.
- CORNELL UNIVERSITY. "The National Program for Acquisitions and Cataloging" (Stevens) 22-23.
- Cox, N. S. M. *The Computer and the Library*, review of, 225-226.
- CRONIN, JOHN W. "The Age of Cronin: Aspects of the Accomplishment of John W. Cronin, Library of Congress, 1925-1968" (Clapp, Welsh) 385-405.
- Cunha, George Daniel Martin. *Conservation of Library Materials*, review of, 371.

D

- Dahl-Hansen, Abigail. "Acquisitions in 1967," 177-185.
- Dawson, John M. "In the Mail: RTSD," 47.

"Decimal Classification Editorial Policy Committee Annual Report, 1966/67," 105-107; "1967/68," 465-466.

Desmond, Robert D. "RTSD Serials Section Annual Report, 1966/67," 98-99.

DEWEY DECIMAL CLASSIFICATION *see* CLASSIFICATION—DEWEY DECIMAL

DIACRITICAL MARKS. "Special Characters and Diacritical Marks Used in Roman Alphabets" (Rather) 285-295.

Diaz, Albert James. *Guide to Reprints, 1968*, review of, 369-370.

Dix, William S. "The Age of Cronin" (Clapp, Welsh) 395-396.

Dougherty, Richard M. "Acquisitions in 1967" (Dahl-Hansen) 177-185.

—. "Emerging Problems in Acquisitions," 147-160.

—. *Investigation Concerning the . . . Computerized Serials Book Catalog*, review of, 469-470.

—. "Manpower Utilization in Technical Services," 77-82.

Downs, Robert B. *Bibliography: Current State and Future Trends*, review of, 226-227.

Dunkin, Paul S. *Bibliography: Current State and Future Trends* (Downs, Jenkins), review, 226-227.

—. *A Chronology of Librarianship* (Smith), review, 471.

—. "From the Editor's Desk," 115-116, 367.

DUNKIN, PAUL S. "Paul S. Dunkin," 447-449.

E-F

EDUNET. *EDUNET* (Brown, Miller, (Keenan), review, 225.

Ellinger, Werner B. "Catalog Entries for Primary Legal Sources," 352-358.

Ellsworth, Ralph E. "The Age of Cronin" (Clapp, Welsh) 394-395.

ENTRY *see* CATALOGING

Evans, Luther H. "The Age of Cronin" (Clapp, Welsh) 393.

FACSIMILE TRANSMISSION. "Facsimile Transmission in Libraries" (Schatz), 5-15.

—. *The New York State Library's Pilot Program in the Facsimile Transmission of Library Materials*, review, 470-471.

—. *Telefacsimile in Libraries* (Schieber, Shoffner), review, 470-471.

Fisher, Eva Lou. *A Checklist for the Organization, Operation, and Evaluation*

of a Company Library, review of, 227-228.

FLOW CHARTS. "Logical Flow Charts . . ." (Gull) 47-66.

Ford, Stephen. *Conservation of Library Materials* (Cunha), review, 371.

Frarey, Carlyle J. "Decimal Classification Editorial Policy Committee Annual Report, 1966/67," 105-107; "1967/68," 465-466.

"From the Editor's Desk," 115-116, 367.

G-H

Gellatly, Peter. *Guide to Current Malaysian Serials* (Harris), review, 370-371.

GOVERNMENT PUBLICATIONS. "Depository Libraries: The Out-Houses of the Government's Information Transfer System" (Brock) 407-414.

Gull, C. D. "Logical Flow Charts and Other New Techniques for the Administration of Libraries and Information Centers," 47-66.

Hammer, Donald P. *Investigation Concerning the Modification of the University of Illinois Computerized Serials Book Catalog to Achieve an Operative System at the University of Colorado Libraries* (Dougherty, Stephens), review, 469-470.

—. "A Review of the ASTM CODEN for Periodical Titles," 359-365.

Harris, Ira W. "Disorganized for Use," 161-165.

Harris, L. J. *Guide to Current Malaysian Serials*, review of, 370-371.

Harris, Michael H. "Cooperative Research Facilities: One More Possibility," 70-76.

Hawken, William R. *Copying Methods Manual*, review of, 118-123.

Hickey, Doralyn J. "The Cataloging Procedure Manual as a Teaching Device," 167-176.

Holmes, Robert R. "Introduction to the Seventh Edition of Subject Headings Used in the Dictionary Catalogs of the Library of Congress," 323-329.

Horton, Carolyn. *Cleaning and Preserving Bindings and Related Materials*, review of, 371-372.

Houghton, Bernard. *Information Work Today*, review of, 228-229.

Huang, Theodore S. "Efficacy of Citation Indexing in Reference Retrieval," 415-434.

- Huff, William H. "RTSD Annual Reports, 1967/1968," 459-461.
 —. "Serial Observations—1967," 189-202.

I-K

- INDEXING. "Efficacy of Citation Indexing in Reference Retrieval" (Huang) 415-434.
 INFORMATION RETRIEVAL. *Textbook on Mechanized Information Retrieval* (Kent), review, 372-373.
 INFORMATION SERVICE. *Information Work Today* (Houghton), review, 228-229.
 Jordan, Robert. "The Jordan Plastic Book Box: A New Concept in Library Storage and Circulation," 435-441.
 Kent, Allen. *Textbook on Mechanized Information Retrieval*, review of, 372-373.
 Knapp, John F. "Design Considerations for the MARC Magnetic Tape Formats," 275-285.
 Krupp, Robert G. *A Checklist for the Organization, Operation, and Evaluation of a Company Library* (Fisher), review, 227-228.

L

- Ladd, Dorothy. "RTSD Annual Reports, 1967/1968," 457-458.
 Leach, Theodore Edward. "A Compendium of the MARC System," 250-275.
 LEGAL MATERIALS. "Catalog Entries for Primary Legal Sources" (Ellinger) 352-358.
 LIBRARIANSHIP. *A Chronology of Librarianship* (Smith), review, 471.
 —. *Progress in Library Science, 1966*, review, 117-118.
 LIBRARY ADMINISTRATION. *A Checklist for the Organization, Operation, and Evaluation of a Company Library* (Fisher), review, 227-228.
 —. "Logical Flow Charts and Other New Techniques for the Administration of Libraries and Information Centers" (Gull) 47-66.
 LIBRARY-BOOKDEALER RELATIONS. "Emerging Problems in Acquisitions" (Dougherty) 147-160.
 LIBRARY COLLECTIONS. "Criteria for Weeding of Collections" (Cooper) 339-351.
 —. "Depository Libraries: The Out-Houses of the Government's Information Transfer System" (Brock) 407-414.
 —. "Statistics of Collection Overlap at

the Libraries of the Six New England State Universities" (Nugent) 31-36.
 LIBRARY COOPERATION. "Cooperative Research Facilities: One More Possibility" (Harris) 70-76.

- LIBRARY OF CONGRESS. "The Age of Cronin" (Clapp, Welsh) 385-405.
 —. "An Analysis of Bibliographic Data Conversion Costs" (Simmons) 296-311.
 —. "A Compendium of the MARC System" (Leach) 250-275.
 —. "Design Considerations for the MARC Magnetic Tape Formats" (Knapp) 275-285.
 —. "Introduction to the Seventh Edition of Subject Headings Used in the Dictionary Catalogs of the Library of Congress" (Holmes) 323-329.
 —. "MARC: The First Two Years" (Avram) 245-250.
 —. "The National Program for Acquisitions and Cataloging" (Stevens) 18-22.
 —. "The Preparation of MARC Bibliographic Data for Machine Input" (Parker) 311-319.

M

- MARC. "An Analysis of Bibliographic Data Conversion Costs" (Simmons) 296-311.
 —. "A Compendium of the MARC System" (Leach) 250-275.
 —. "Design Considerations of the MARC Magnetic Tape Formats" (Knapp) 275-285.
 —. "Machine-Readable Catalog for *British National Bibliography*," 374.
 —. "MARC: The First Two Years" (Avram) 245-250.
 —. "The Preparation of MARC Bibliographic Data for Machine Input" (Parker) 311-319.
 Martin, Allie Beth. "Emerging Problems in Acquisitions" (Dougherty) 152-156.
 Meadow, Charles T. *Textbook on Mechanized Information Retrieval* (Kent), review, 372-373.
 Melcher, Daniel. "The Age of Cronin" (Clapp, Welsh) 402-403.
 Merritt, LeRoy Charles. "A Symposium on Approval Order Plans" (Morrison) 140-142.
 MICROFORMS. *Microcopying Methods* (Ver-ry), review, 472-474.
 —. *Microfilm Norms: Recommended Standards for Libraries* (ALA), review, 123.

—. *Specifications for Library of Congress Microfilming* (Salmon), review, 123.

Morrison, Perry D. "A Symposium on Approval Order Plans and the Book Selection Responsibilities of Librarians," 133-145.

Mount, Ellis. *Information Work Today* (Houghton), review, 228-229.

Mumford, L. Quincy. "The Age of Cronin" (Clapp, Welsh) 388-390.

Myers, Paul. *The Cataloging and Classification of Cinema Literature* (Steele), review, 373-374.

N

NATIONAL PROGRAM FOR ACQUISITIONS AND CATALOGING (NPAC) see SHARED CATALOGING

NEW ENGLAND UNIVERSITIES. "Statistics of Collection Overlap at the Libraries of the Six New England State Universities" (Nugent) 31-36.

New York State Library's Pilot Program in the Facsimile Transmission of Library Materials, review of, 470-471.

"Nominees for 1968/69," 113-114.

Norton, Elizabeth F. *Subject Index to New Serial Titles*, review, 471-472.

Nugent, William R. "Statistics of Collection Overlap at the Libraries of the Six New England State Universities," 31-36.

O-P

ORDER PLANS see ACQUISITIONS

Orne, Jerrold. "The Age of Cronin" (Clapp, Welsh) 390-391.

PL480. *The Impact of the Public Law 480 Program on Overseas Acquisitions by American Libraries* (Williamson), review, 223-225.

Parker, Edwin B. *Communication: Concepts and Perspectives* (Thayer), review, 229-230.

—. *The New York State Library's Pilot Program in the Facsimile Transmission of Library Materials*, review, 470-471.

—. *Telefacsimile in Libraries* (Schieber, Shoffner), review, 470-471.

Parker, Patricia E. "The Preparation of MARC Bibliographic Data for Machine Input," 311-319.

PERIODICALS see SERIALS

PERSONNEL. "Manpower Utilization in Technical Services" (Dougherty) 77-82.

PRESERVATION OF MATERIALS. *Cleaning and Preserving Bindings and Related Materials* (Horton), review, 371-372.

—. *Conservation of Library Materials* (Cunha), review, 371.

—. "The Jordan Plastic Book Box: A New Concept in Library Storage and Circulation" (Jordan) 435-441.

—. "Some Problems in Book Conservation" (Banks) 330-338.

Progress in Library Science, 1966, review of, 117-118.

PUBLIC RELATIONS. "Public Relations Programs of Public Libraries' Technical Services" (Brose) 320-322.

R

RTSD. "In the Mail: RTSD" (Dawson) 47.

—. "RTSD Annual Reports, 1967/1968," 450-461.

—. "RTSD in an Age of Change" (Brown) 442-446.

—. "RTSD: Program and Objectives," 218-220.

—. "RTSD Work Projects Meeting," 462-464.

—. "Remarks on the Program of RTSD, June 27, 1967" (Weber) 102.

RTSD. ACQUISITIONS SECTION. "Proposed Amendments to RTSD Bylaws and Acquisitions Section Bylaws," 215-218.

—. "RTSD Acquisitions Section Annual Report, 1966/67" (Reichmann) 92-95.

—. "RTSD Annual Reports, 1967/1968," 453-456.

—. BYLAWS. "Proposed Amendments to RTSD Bylaws . . ." 215-218.

—. CATALOGING AND CLASSIFICATION SECTION. "RTSD Annual Reports, 1967/1968," 457-458.

—. "RTSD Cataloging and Classification Section Annual Report, 1966/67" (Sanner) 95-97.

—. COPYING METHODS SECTION. "RTSD Copying Methods Section Annual Report, 1966/67" (Salmon) 100-101.

—. COUNCIL OF REGIONAL GROUPS. "RTSD Council of Regional Groups Annual Report, 1966/67" (Schultheiss) 101-102.

—. EXECUTIVE SECRETARY. "Report of the RTSD Executive Secretary, 1966/67" (Rodell) 103-105.

—. INTERSECTIONAL COMMITTEE. "RTSD Intersectional Committee on U. S.

- Congresses and Conferences Without Fixed Headquarters, Report of Activities through June 1967," 108-112.
- . NOMINEES. "Nominees for 1968/69," 113-114.
- . PLANNING COMMITTEE. "RTSD Work Projects Meeting," 462-464.
- . PRESIDENT. "RTSD Annual Reports, 1967/1968," 450-453.
- . —. "RTSD President's Report, 1966/67" (Simonton) 89-91.
- . REPRODUCTION OF LIBRARY MATERIALS SECTION. "RTSD Annual Reports, 1967/1968," 458-459.
- . SERIALS SECTION. "RTSD Annual Reports, 1967/1968," 459-461.
- . —. "RTSD Serials Section Annual Report, 1966/67" (Desmond) 98-99.
- Rather, Lucia J. "Special Characters and Diacritical Marks Used in Roman Alphabets," 285-295.
- Rebuldela, Harriet K. *Guide to Reprints, 1968* (Diaz), review, 369-370.
- Reichmann, Felix. "RTSD Acquisitions Section Annual Report, 1966/67," 92-95.
- . "RTSD Annual Reports, 1967/1968," 453-456.
- REPRINTS. *Guide to Reprints, 1968* (Diaz), review, 369-370.
- REPRODUCTION OF LIBRARY MATERIALS *see* COPYING METHODS
FACSIMILE TRANSMISSION
MICROFORMS
REPRINTS
- RESOURCES AND TECHNICAL SERVICES DIVISION *see* RTSD
- Reviews, 117-123, 223-230, 368-374, 469-474.
- Rodell, Elizabeth. "Report of the RTSD Executive Secretary, 1966/67," 103-105.
- Rogers, Frank B. "The Age of Cronin" (Clapp, Welsh) 396-397.
- Ross, Ryburn M. "The National Program for Acquisitions and Cataloging" (Stevens) 22-23.

S

- Salmon, Stephen R. "RTSD Copying Methods Section Annual Report, 1966/67," 100-101.
- . *Specifications for Library of Congress Microfilming*, review of, 123.
- Santer, Marian. "RTSD Cataloging and Classification Section Annual Report, 1966/67," 95-97.
- Schatz, Sharon. "Facsimile Transmission in Libraries: A State of the Art Survey," 5-15.
- Schieber, William D. *Telefacsimile in Libraries*, review of, 470-471.
- Schultheiss, Louis A. "RTSD Council of Regional Groups Annual Report, 1966/67," 101-102.
- SELECTION OF MATERIALS. "Cooperative Research Facilities: One More Possibility" (Harris) 70-76.
- . "A Symposium on Approval Order Plans" (Morrison) 133-145.
- SERIALS. *Guide to Current Malaysian Serials* (Harris), review, 370-371.
- . *Investigation Concerning the . . . Computerized Serials Book Catalog* (Dougherty, Stephens), review, 469-470.
- . "A Review of the ASTM CODEN for Periodical Titles" (Hammer) 359-365.
- . "Serial Observations—1967" (Huff) 189-202.
- . *Subject Index to New Serial Titles*, review, 471-472.
- SHARED CATALOGING. "The Age of Cronin" (Clapp, Welsh) 385-405.
- . "The National Program for Acquisitions and Cataloging" (Stevens) 17-29.
- Shepard, Stanley A. "A Symposium on Approval Order Plans" (Morrison) 144-145.
- Shetrod, John. *EDUNET* (Brown, Miller, Keenan), review, 225.
- Shoemaker, Richard H. *Progress in Library Science, 1966*, review, 117-118.
- Simmons, P. A. "An Analysis of Bibliographic Data Conversion Costs," 296-311.
- Simonton, Wesley. "RTSD President's Report, 1966/67," 89-91.
- Smith, Audrey. *Anglo-American Cataloguing Rules: British Text*, review, 368-369.
- Smith, Josephine Metcalfe. *A Chronology of Librarianship*, review of, 471.
- SPALDING, C. SUMNER. "C. Sumner Spalding" (Angell) 67-69.
- STANFORD UNIVERSITY. "The National Program for Acquisitions and Cataloging" (Stevens) 23-25.
- Steele, Robert. *The Cataloging and Classification of Cinema Literature*, review of, 373-374.

Stevens, Norman D. "The National Program for Acquisitions and Cataloging: A Progress Report," 17-29.

Stevens, Robert D. *The Impact of the Public Law 480 Program on Overseas Acquisitions by American Libraries* (Williamson), review, 223-225.

STORAGE. "The Jordan Plastic Book Box" (Jordan) 435-441.

SUBJECT HEADINGS—LIBRARY OF CONGRESS. "Introduction to the Seventh Edition of Subject Headings Used in the Dictionary Catalogs of the Library of Congress" (Holmes) 323-329.

T

Tauber, Maurice F. "The Age of Cronin" (Clapp, Welsh) 398-402.

TECHNICAL SERVICES. "How I Spend My Typical Day, Week, and Year: Technical Services" (Colvin) 83-87.

—. "Manpower Utilization in Technical Services" (Dougherty) 77-82.

—. "Public Relations Programs of Public Libraries' Technical Services" (Brose) 320-322.

TELEFACSIMILE *see* FACSIMILE TRANSMISSION

Thayer, Lee. *Communication: Concepts and Perspectives*, review of, 229-230.

TITLE-PAGE PHOTOGRAPHY. "The Use of Title-Page Photography in Cataloging" (Weimerskirch) 37-46.

Tuttle, Helen Welch. "RTSD Work Projects Meeting," 462-464.

U-V

UNIVERSITY OF HAWAII. "Disorganized for Use" (Harris) 161-165.

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL. "The National Program for Acquisitions and Cataloging" (Stevens) 25-27.

Veaner, Allen B. "Developments in Reproduction of Library Materials & Graphic Communication, 1967," 203-214.

—. *Microcopying Methods* (Verry), review, 472-474.

Verry, H. R. *Microcopying Methods*, review of, 472-474.

W

Wagman, Frederick H. "The Age of Cronin" (Clapp, Welsh) 391-392.

Weber, David C. "RTSD Annual Reports, 1967/1968," 450-453.

—. "Remarks on the Program of RTSD, June 27, 1967," 102.

WEEDING. "Criteria for Weeding of Collections" (Cooper) 339-351.

Wells, A. J. "The Age of Cronin" (Clapp, Welsh) 403-405.

Welsh, William J. "The Age of Cronin: Aspects of the Accomplishment of John W. Cronin, Library of Congress, 1925-1968," 385-405.

Williams, Gordon. "The Age of Cronin" (Clapp, Welsh) 397-398.

Williamson, William L. *The Impact of the Public Law 480 Program on Overseas Acquisitions by American Libraries*, review of, 223-225.

Your subscription agent must be

RELIABLE

With us you need never worry about expirations, renewal notices, additional volumes, supplements, title changes, foreign language letters, and many other details. (Have you seen our new brochure "Serial Services"?)



THE WORLD'S LEADING

INTERNATIONAL BOOKSELLERS

Stechert-Hafner, Inc.

offices in
ENGLAND/FRANCE/GERMANY/
COLOMBIA/BRAZIL

31 East 10 Street/New York, N. Y. 10003

ANNOUNCING

**A computer compatible filing code
FOR: DOCUMENTALISTS • CATALOGERS • LIBRARIANS
PUBLISHERS • COMPUTER PERSONNEL**



PRICE: \$5.95

An important book for those using or contemplating use of computer information storage and retrieval systems. A workable filing code that makes it possible to deal with all catalog entries, even the most complex.

Written by Dr. Theodore C. Hines and Jessica L. Harris and sponsored by The Bro-Dart Foundation, this new filing code suggests actual steps for implementing filing rules for all bibliographic material dealt with on the computer. The code, wherever reasonable, makes the mechanical filing abilities

of a computer compatible with accepted library procedures.

"COMPUTER FILING" includes a set of manual filing rules recommended for achieving the same arrangement with or without adoption of the computer code so that later conversion to computer based catalogs will be easier. Included, too, is an extensive filing example showing comparison of rules of the code with A.L.A. rules.

Address orders for Computer Filing of Index Bibliographic and Catalog Entries to

The Bro-Dart Foundation

Dept. LRT, 113 Frelinghuysen Avenue, Newark, New Jersey 07101

Expert Service on
MAGAZINE SUBSCRIPTIONS

for
ALL LIBRARIES



Faxon's Librarians Guide

Available on request



For the very best library subscription service—ask about our Till Forbidden Automatic Renewal plan.

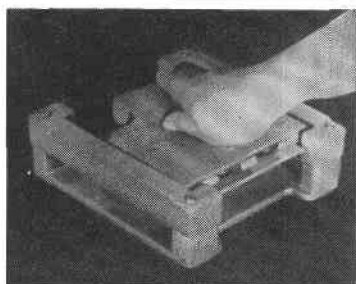


F. W. FAXON CO., INC.

515-525 Hyde Park Ave.
Boston, Mass. 02131



**Continuous Service to Libraries
Since 1886**



**Chiang's New Model
Catalog Card Duplicator**
Price \$54.50

Important improvements achieved from wide experience, assure to produce high quality catalog cards, with enlarged space good also for printing post-card, book card, book pocket, address, etc.

Plus new features in stencil and new ink to dry in 10 minutes.

Patented • Performance Guaranteed

Order "On Approval" Invited

Order now directly from the Inventor:

Chiang Small Duplicators

53100 Juniper Road
South Bend, Indiana 46637



Now Available! Volumes 1-5

**The National Union Catalog
Pre-1956 Imprints**

Book—form publication of the vast Library of Congress National Union Catalog of imprints from the beginning of printing through 1955 is one of the major accomplishments of the American Library Association. It will now be possible for a library to have at hand for immediate consultation a bibliographical record unparalleled in the history of libraries.

Write now for a free copy of the Prospectus (LC 67-30000) and for complete information about ordering. Until October 31, 1968 a special Subscription and Deposit purchase plan for Volumes 1-60 is available.

Each Volume: 14 x 10½ inches, 704 pages
approximately 20,640 entries

U.S. \$15.18

£6. 6s. 6d. sterling

Write to:

mansell

360 North Michigan Avenue
Chicago, Illinois. 60601

or

3 Bloomsbury Place,
London. WC1

THE SELECTIVE ORDER PLAN FOR YOUR LIBRARY...

*Just as the word selective denotes, the PERGAMON PRESS PLAN is a personalized program designed to meet the specific needs of your library:

ADVANTAGES

- PRE-SCREENING by highly qualified editors for subject matter and reading levels guarantees you will receive only those books appropriate to your library's needs.
- SHIPMENTS PREPAID at our expense.
- CONVENIENT BILLING — To avoid double handling and delay, invoices can be sent to your purchasing department, while shipments will be sent to any department you specify.
- LIBRARY OF CONGRESS CARDS — For quick/easy cataloging, LC Cards are supplied for each title shipped.
- 15% DISCOUNT on your selective order purchases—regardless of your order size.
- FULL RETURN PRIVILEGES — All books are sent on "approval"—you pay only for the books you keep.
- ADVANCE NOTICE — Each month you'll receive two copies of the annotated MONTHLY BULLETIN indicating exactly which titles will be supplied under the Plan. You can make any changes or adjustments necessary, and return one copy of the BULLETIN to us, thereby receiving only those titles you require.
- YOU CONTROL this Plan at all times.



TO TAKE ADVANTAGE OF THIS LIBRARY ORIENTED
DIRECT - FROM - THE - PUBLISHER SERVICE . . .
WRITE NOW FOR PERGAMON SELECTIVE ORDER FORM

LIBRARY DIVISION /PERGAMON PRESS /44-01 21st. Street/ Long Island City/ New York 11101

Now available . . .

YOUR NEWEST, MOST COMPREHENSIVE SOURCE OF INFORMATION FOR CONFERENCE PROCEEDINGS

in the Social Sciences and Humanities

The DIRECTORY of PUBLISHED PROCEEDINGS, Series SSH, covers all phases of the social sciences and humanities. It includes the published proceedings literature in the fields of education, economics, business administration, law, management, labor relations, social welfare, psychology, religion and other areas of research in the social sciences and humanities.

Published quarterly, with complete annual indices.

Volume 1, 1968, and Volume 2, 1969, at \$45.00 per volume in the U.S.A. and Canada; \$50.00 elsewhere.

A complimentary review copy of the DIRECTORY OF PUBLISHED PROCEEDINGS, Series SSH, will be forwarded upon request.

THE DIRECTORY OF PUBLISHED PROCEEDINGS

INTERDOK CORP., P.O. Box 81, Gedney Station, White Plains, N.Y. 10605

— INVALUABLE BIBLIOGRAPHIC TOOLS —

Harvard University Library

CATALOGUE OF HEBREW BOOKS

The 75,800 cards in the Hebrew catalogue of the Harvard University Library are here photographically reproduced, 21 cards to a page at a 50% reduction, in six sturdily bound 9 × 12 inch volumes. The first four volumes comprise a dictionary catalogue of authors and subjects; the last two are a catalogue of Hebrew titles. The collection is especially rich in rabbinic literature. The library has an excellent collection of belles-lettres, philology, and materials dealing with Jewish history and culture in the Diaspora and in Israel, and it includes much on East European Jewry and on Zionism. The collection on Israel in general and on its Jewish community in particular is also noteworthy. The *Catalogue's* usefulness is enhanced by the inclusion of a considerable number of Library of Congress depository cards for books not in Harvard's collection. A prospectus describing the *Catalogue* in further detail is available on request. 3,611 pp. 6 vols. \$225.00 the set.

Harvard University Library

CATALOGUE OF ARABIC, PERSIAN, AND OTTOMAN TURKISH BOOKS

Similar in format to the *Catalogue of Hebrew Books*, this five-volume work reproduces the 67,000 cards in the catalogue of the library's Middle Eastern collections. The first three volumes provide an author, title, and personal-subject catalogue of the Arabic books; volume four contains similar dictionary catalogues of the Persian and the Ottoman Turkish books; and volume five provides a topical subject index in one alphabet of all books listed in the other volumes. The prefatory matter in volume one summarizes the history of Middle Eastern studies and resources in the United States. The University's catalogued Middle Eastern collections contain approximately 31,000 volumes in Arabic, 6,000 in Persian, and 4,000 in Ottoman Turkish. Both classical and modern works are well represented. Nineteenth- and twentieth-century periodicals are an outstanding feature. The *Catalogue* includes a considerable number of Library of Congress depository cards for Arabic and Persian books not in Harvard's collection. A prospectus is available on request. 3,200 pp. 5 vols. \$195.00 the set.

Distributed for the Harvard University Library.

All orders and requests for further information should be sent to

HARVARD UNIVERSITY PRESS

79 Garden Street, Cambridge, Massachusetts 02138

Nutrition
 Medicine
 Pharmacology
 Dentistry
 Psychiatry
 Biology
 Biochemistry
 Microbiology
 Physiology
 Physical Chemistry
 Analytical Chemistry
 Chemical Engineering
 Civil Engineering
 Metallurgy
 Aerospace Sciences
 Mechanical Engineering
 Petroleum Engineering
 Electrical Engineering
 Electronic Engineering
 Physics
 Astronomy
 Nuclear Sciences
 Earth Sciences
 Meteorology
 Oceanography
 Mathematics
 Computer Sciences
 Data Processing
 Documentation
 Agriculture
 Zoology
 Forestry

Announcing a new, weekly magnetic tape index service by Pandex

Beginning October 1968, Pandex is making available interdisciplinary bibliographic subject/author indexes of scientific and technical periodicals on a weekly tape basis.

Over 2,000 major journals in all disciplines of pure and applied sciences as well as over 6,000 new books each year and U.S. Government research reports are indexed by significant subjects and cross-referenced in conjunction with the 65,000-word Pandex thesaurus. Subject entries contain full title, primary author, and periodical reference. Author entries are indexed by both primary and secondary authors, and include full title and periodical reference.

Program for subscribers

The Pandex tape service is created on an IBM 360 from a continually expanding data base. Coding is EBCDIC or BCDC.

A tape subscriber receives a set of programs for printout and retrospective search. In addition, Pandex provides a complete program for in-house SRI service.

Pandex back index records are available, prices on request. Sample tapes and printout programs are available for evaluation purposes.

PANDEX

CCM INFORMATION SCIENCES, INC. Dept. LRTS-1
 A SUBSIDIARY OF CROWELL COLLIER AND MACMILLAN, INC.
 866 Third Avenue, New York, New York 10022

- ☐ Please send complete information
☐ Please send sample tape and printout program

NAME _____
 TITLE _____
 LIBRARY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP _____

WIDENER LIBRARY SHEFLIST

This important bibliographical series lists the holdings of Harvard's central research collection. Reproduced from computer printouts in an 8½ × 11 inch format, these volumes list books in classified order and also, in most cases, by author and by date of publication. The earlier volumes are in upper case computer type with approximately 60 entries per page, while the more recent ones are in upper and lower case with 85 entries per page. Volumes now in preparation will be done by computerized photo-typesetting techniques which will further improve the quality and increase the page density.

NOW AVAILABLE:

1. CRUSADES. 1965. 82 pp., 1,202 titles. Out of print.
2. AFRICA. 1965. 790 pp., 13,335 titles. \$25.00
3. TWENTIETH-CENTURY RUSSIAN LITERATURE. 1965. 428 pp., 9,430 titles. \$20.00
4. RUSSIAN HISTORY SINCE 1917. 1966. 698 pp., 13,722 titles. \$30.00
- 5-6. LATIN AMERICA. 1966. 1,492 pp., 27,292 titles. 2 vols., \$65.00
7. BIBLIOGRAPHY. 1966. 1,066 pp., 19,643 titles. \$40.00
8. REFERENCE COLLECTIONS. 1966. 187 pp., 4,300 titles. \$10.00
- 9-13. AMERICAN HISTORY. 1967. 4,087 pp., 83,867 titles. 5 vols., \$175.00
14. CHINA, JAPAN AND KOREA. 1968. 494 pp., 11,388 titles. \$25.00
15. PERIODICAL CLASSES. 1968. 758 pp., 25,685 titles. \$25.00
- 16-17. EDUCATION. 1968. 1,610 pp., 32,722 titles. 2 vols., \$60.00
18. LITERATURE: General and Comparative. 1968. 189 pp., 5,065 titles. \$10.00
19. SOUTHERN ASIA: Afghanistan, Bhutan, Burma, Cambodia, Ceylon, India, Laos, Malaya, Nepal, Pakistan, Sikkim, Singapore, Thailand, and Vietnam. 1968. 543 pp., 10,292 titles. \$20.00
20. CANADIAN HISTORY AND LITERATURE. 1968. 411 pp., 10,212 titles. \$17.50

IN PREPARATION:

- LATIN AMERICAN LITERATURE. 1968. 15,000 titles. \$20.00
- GOVERNMENT. 1968. 7,000 titles.
- ECONOMICS. 1969. 60,000 titles. 2 vols.
- SLAVIC HISTORY AND LITERATURES: Russia and the Soviet Union. 1969. 56,000 titles. (will supersede Nos. 3 and 4.) 2 vols.
- SLAVIC HISTORY AND LITERATURES: Poland, Czechoslovakia, Yugoslavia, and Bulgaria. 1969. 50,000 titles. 2 vols.
- CELTIC LITERATURE. 1969. 7,200 titles.
- AMERICAN LITERATURE. 1969. 55,000 titles. 2 vols.

Information subject to change.

Distributed for the Harvard University Library. Volumes may be ordered separately, or standing orders may be placed for the entire series. Write for descriptive brochure. All orders and requests for information should be sent to

HARVARD UNIVERSITY PRESS

79 Garden Street, Cambridge, Massachusetts 02138

From Aesop to Dr. Seuss,
if it's been published in
America or England
you can probably find it in—

CHILDHOOD IN POETRY

A five-volume bibliography
and index of 10,000 books
and the 100,000 child-oriented poems
which first appeared in them

Edited by John MacKay Shaw

A catalog of the
Shaw Childhood in Poetry Collection

Robert Manning Strozier Library

Florida State University

Tallahassee, Florida



3,500 pages — 8½ x 11 — \$135.00

CHILDHOOD IN POETRY is believed to be the most comprehensive work ever published in the field of children's verse. In total, it is a gigantic mosaic that reflects the literary and social climate that have motivated children—and adults—throughout the centuries. Each entry provides extensive bibliographic details not only for first printings of books of poetry but also for anthologies, periodicals, annuals and other materials in which poems have appeared that relate to childhood or which have been read to and by children.

Librarians, researchers, teachers, and collectors will readily recognize this major new reference as their primary guide to the content of 10,000 books in which first appeared 100,000 poems on thousands of subjects ranging from Aardvark to Glass to Stain to Zoo.

Volumes 1 through 4 are composed of numbered entries listed alphabetically by author. For each book cited the title page is recorded in full; publication date and edition are specified; and volume size and pagination are indicated. Further details of collation, binding, points of issue identification, and the like are included where important. A typical passage from the poetry in each book is provided for quick appraisal of its style and content. The editor's personal comments on many poems, volumes, and poets, based on his intimate knowledge of the individual books, adds an only-source element of unusual value to the researcher.

The names of as many illustrators as could be identified through credits or research are cited, and one of the set's most interesting features is the 175 illustrations of both title and text pages that are reproduced from publications in the collection. These serve to graphically indicate the changing trends in both art and book design.

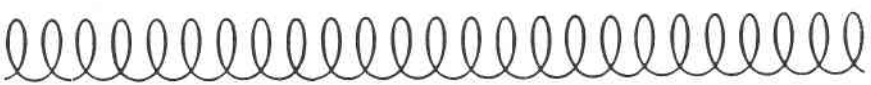
Volume 5 is an exhaustive two-part index to the collection. First, there is a Short Title List and Key arranged by author and numbered to correspond to the base volume. Through this, key books cited by number alone in the index are easily identified without referring to the base volumes. Second, there is a Keyword Index citing more than 100,000 poems under thousands of headings.

We invite you to examine CHILDHOOD IN POETRY free for thirty days, after which you may retain the set and pay our invoice or return to us without further obligation.

"...valuable to any library
supporting the study
of children's literature". —CHOICE

GALE RESEARCH CO.

BOOK TOWER • DETROIT, MICHIGAN 48226



Standard's PERMALIFE®

The complete paper for the complete program

YOU CAN HAVE A WELL ROUNDED PRINTING, STORAGE and FILING PROGRAM when you use PERMALIFE, a Thorographic paper by Standard of Richmond. PERMALIFE is acid-free and absolutely dependable. A life of several hundred to a thousand and more years is assured.* Use PERMALIFE with confidence for

Library Catalog Card Stock

Envelopes for storage of documents and manuscripts

File folders for storage of maps and large documents

Letterheads

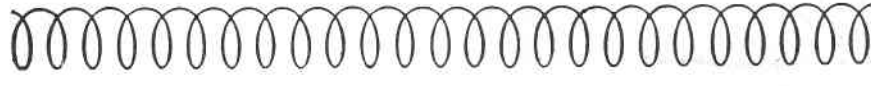
Reprints

PERMALIFE is beautiful in look and feel, and will give true copies by photo offset. PERMALIFE TEXT and PERMALIFE BOND are water-marked for your protection. For permanency use PERMALIFE and be sure.

*According to tests made of PERMALIFE by the W. J. Barrow Research Laboratory. Details upon request.



STANDARD PAPER MANUFACTURING CO.
RICHMOND, VIRGINIA



***For Libraries That Want Quality
Bookbinding***

GLICK BOOKBINDING CORP.



***Specialists in the Binding and Rebinding
of Books and Periodicals***

***Serving Institutional, Public
And Research Libraries
Since 1905***

**32-15 37th Avenue
Long Island City, New York 11101
784-5300**

**In Nassau and Suffolk
Area Code 516 483-9534**

**In New Jersey
Area Code 201 642-5374**